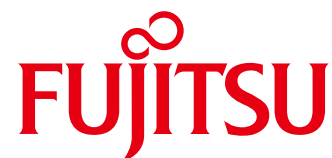


Split type room air conditioner
Wall mounted type



SERVICE MANUAL



Indoor unit	Outdoor unit
ASYG18KLCA	AOYG18KLTA
ASYG24KLCA	AOYG24KLTA

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SPECIFICATIONS

ELECTRICAL DATA

INDOOR UNIT		ASYG18KLCA	ASYG24KLCA
OUTDOOR UNIT		AOYG18KLTA	AOYG24KLTA
POWER SUPPLY		230 V 50 Hz Single phase	
Cooling	Capacity	5.20 kW	7.10 kW
	Power consumption	1.685 kW	2.42 kW
	EER	3.09 kW/kW	2.93 kW/kW
	Operating current	7.5 A	10.9 A
	Max operating current	9.5 A	13.5 A
	Dehumidification	1.9 L/h	3.1 L/h
	Heating	Capacity	6.30 kW
Power consumption		1.80 kW	2.225 kW
COP		3.50 kW/kW	3.60 kW/kW
Operating current		8.0 A	10.4 A
Max operating current		13.5 A	17.5 A

DIMENSIONS

INDOOR UNIT H x W x D	293 x 790 x 249 mm	
OUTDOOR UNIT H x W x D	542 x 799 x 290 mm	632 x 799 x 290 mm

WEIGHT

INDOOR UNIT Net / Shipping	9.5 kg / 12.0 kg	10 kg / 12.5 kg
OUTDOOR UNIT Net / Shipping	33 kg / 36 kg	38 kg / 42 kg

FAN MOTOR AND FAN REVOLUTION

INDOOR UNIT'S Discrimination		MFD-71CXAL	
OUTDOOR UNIT'S Discrimination		MFE-W25VA2F	MFE-S60VD2F
INDOOR UNIT Cooling	High	1,250 rpm	1,480 rpm
	Medium	1,150 rpm	1,270 rpm
	Low	1,010 rpm	1,030 rpm
	Quiet	870 rpm	870 rpm
INDOOR UNIT Heating	High	1,410 rpm	1,480 rpm
	Medium	1,190 rpm	1,190 rpm
	Low	1,050 rpm	1,040 rpm
	Quiet	910 rpm	920 rpm
OUTDOOR UNIT	Cooling	920 rpm	1,050 rpm
	Heating	1,120 rpm	1,100 rpm

AIRFLOW

INDOOR UNIT Cooling	High	865 m ³ /h	1,040 m ³ /h
	Medium	780 m ³ /h	880 m ³ /h
	Low	665 m ³ /h	685 m ³ /h
	Quiet	555 m ³ /h	555 m ³ /h
INDOOR UNIT Heating	High	995 m ³ /h	1,040 m ³ /h
	Medium	810 m ³ /h	810 m ³ /h
	Low	700 m ³ /h	695 m ³ /h
	Quiet	590 m ³ /h	585 m ³ /h
OUTDOOR UNIT	Cooling	1,830 m ³ /h	2,885 m ³ /h
	Heating	2,265 m ³ /h	3,030 m ³ /h

NOISE LEVEL

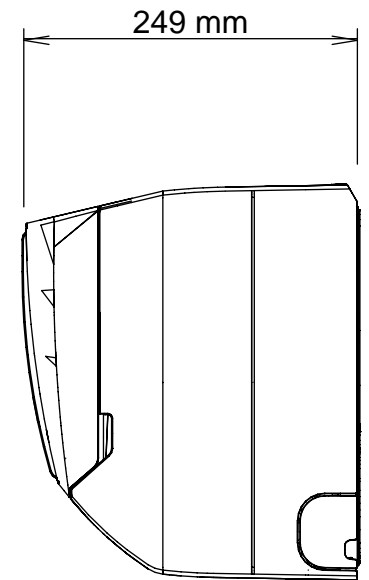
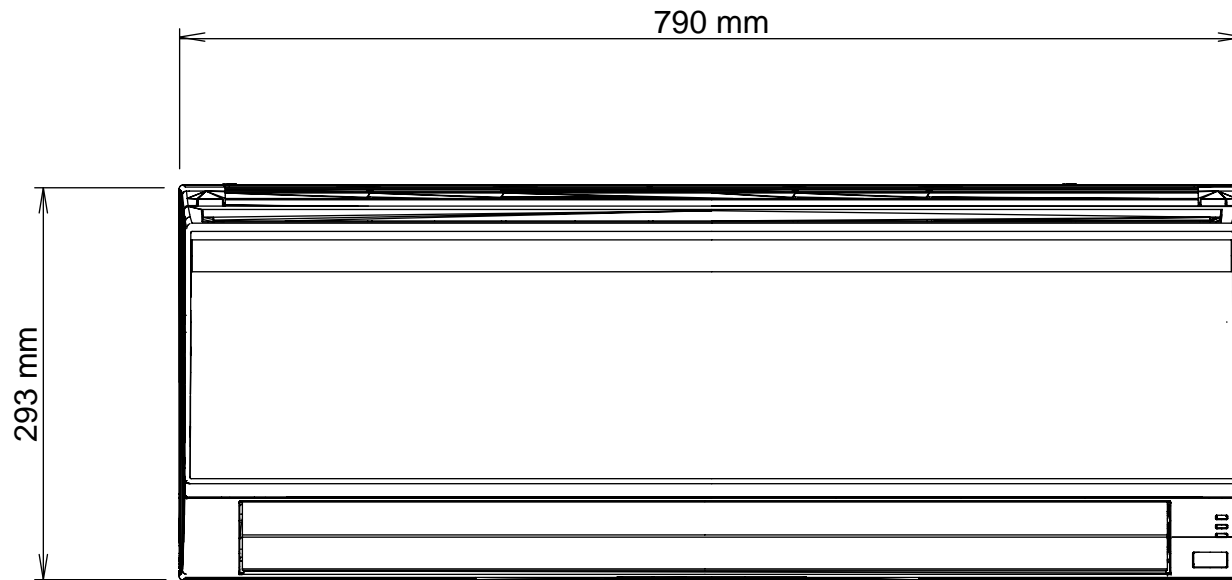
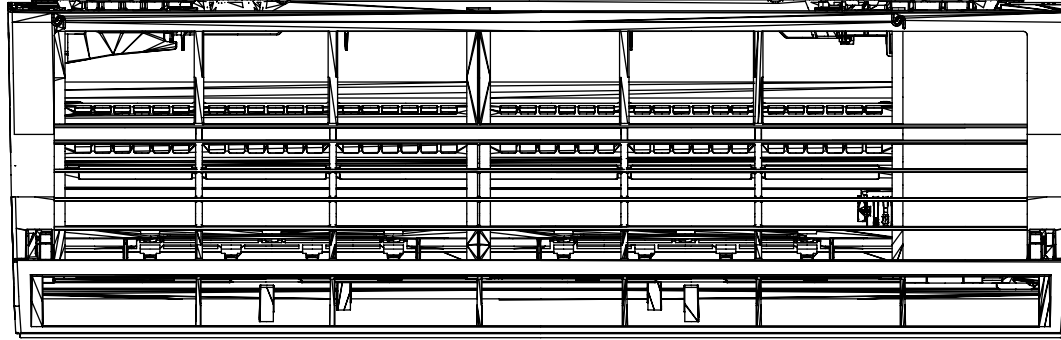
INDOOR UNIT Cooling	High	47 dB	51 dB
	Medium	44 dB	45 dB
	Low	40 dB	38 dB
INDOOR UNIT Heating	High	50 dB	52 dB
	Medium	45 dB	45 dB
	Low	41 dB	41 dB
OUTDOOR UNIT	Cooling	50 dB	55 dB
	Heating	56 dB	57 dB

COMPRESSOR AND REFRIGERANT

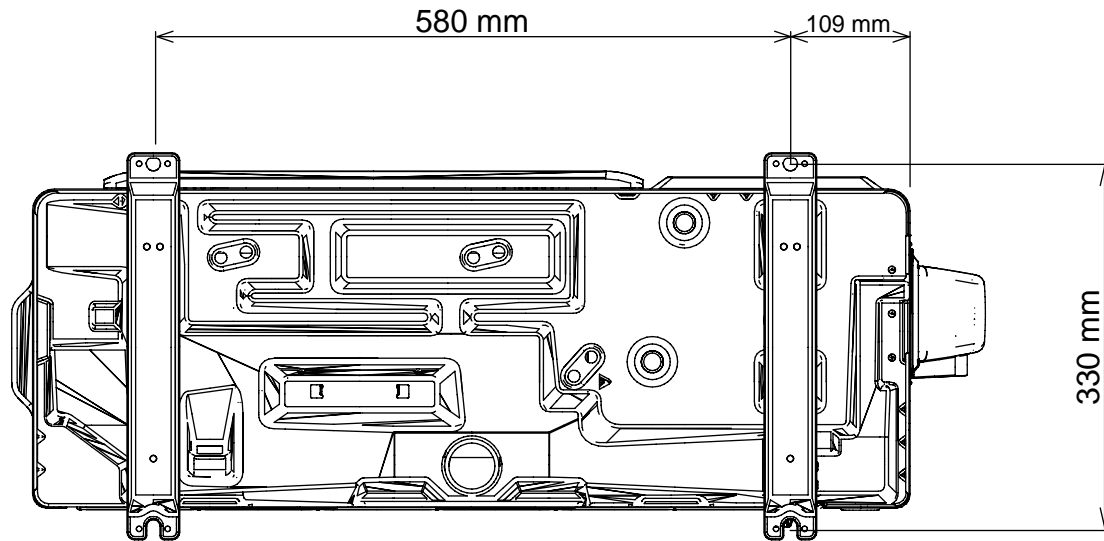
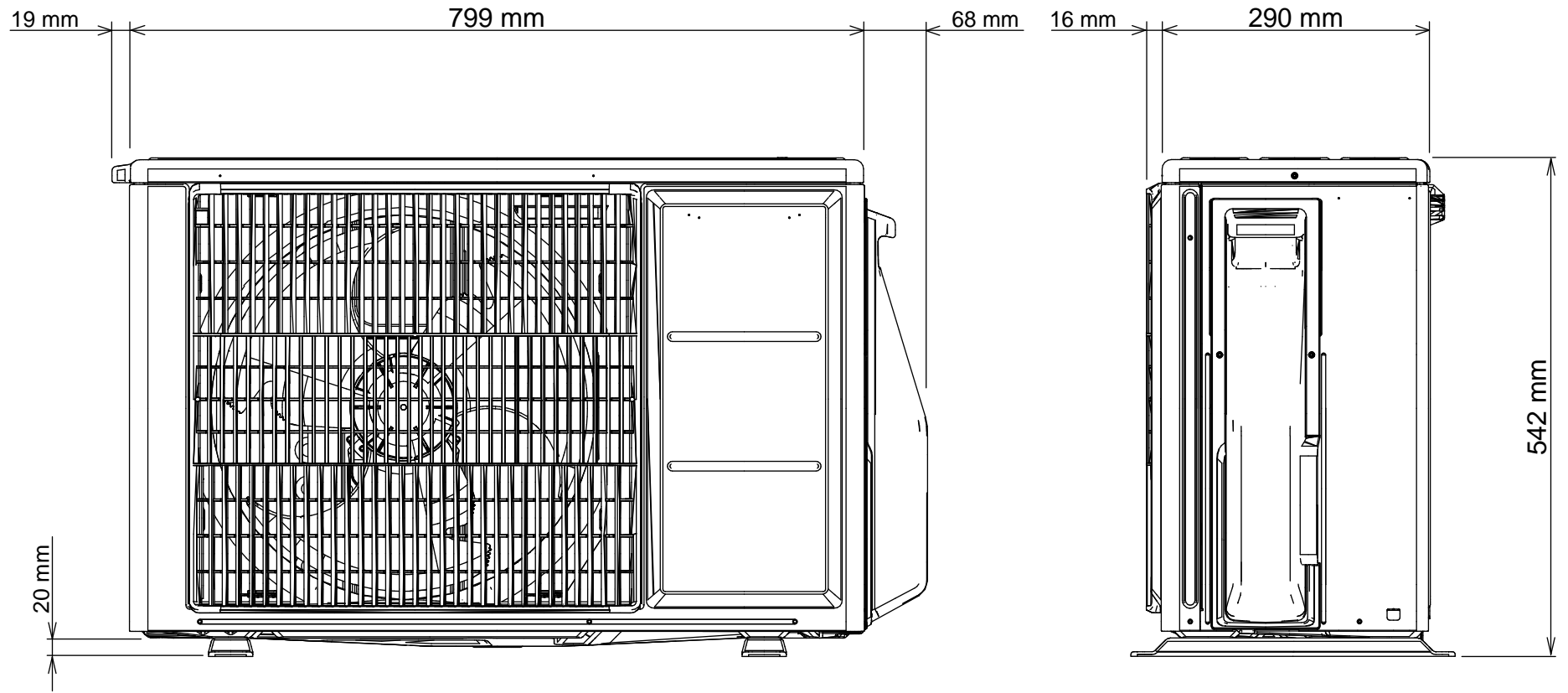
COMPRESSOR TYPE	Hermetic motor compressor, 2-cylinder rotary compressor, Brushless DC motor, 6 poles			
DISCRIMINATION	SVB130FHDMC	N-SG15ND2C		
WEIGHT (with oil)	8.7 kg	10.0 kg		
PRECHARGED REFRIGERANT	850 g	1,100 g		
REFRIGERANT TYPE	R32	R32		
FULL CHARGE	Pipe length	15 m	850 g	1,100 g
		20 m	950 g	1,200 g
		25 m	1,050 g	1,300 g
		30 m	not available	1,400 g
ADDITIONAL CHARGE	20 g/m	20 g/m		
MAX PIPING HEIGHT DIFFERENCE	20 m	25 m		

DIMENSIONS

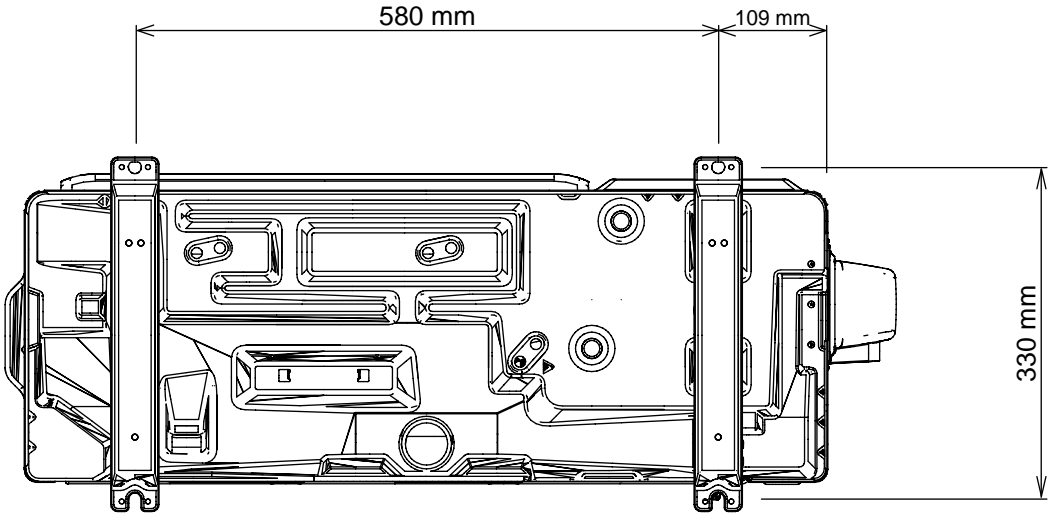
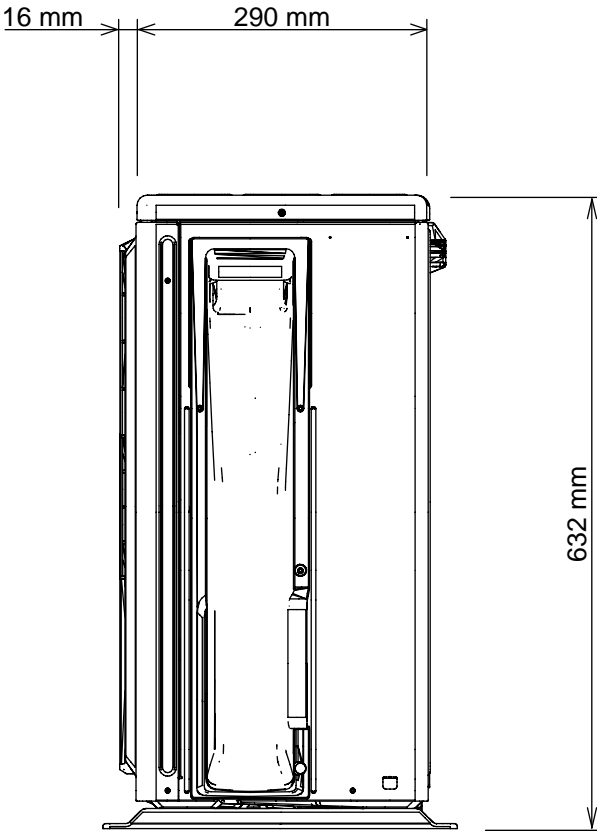
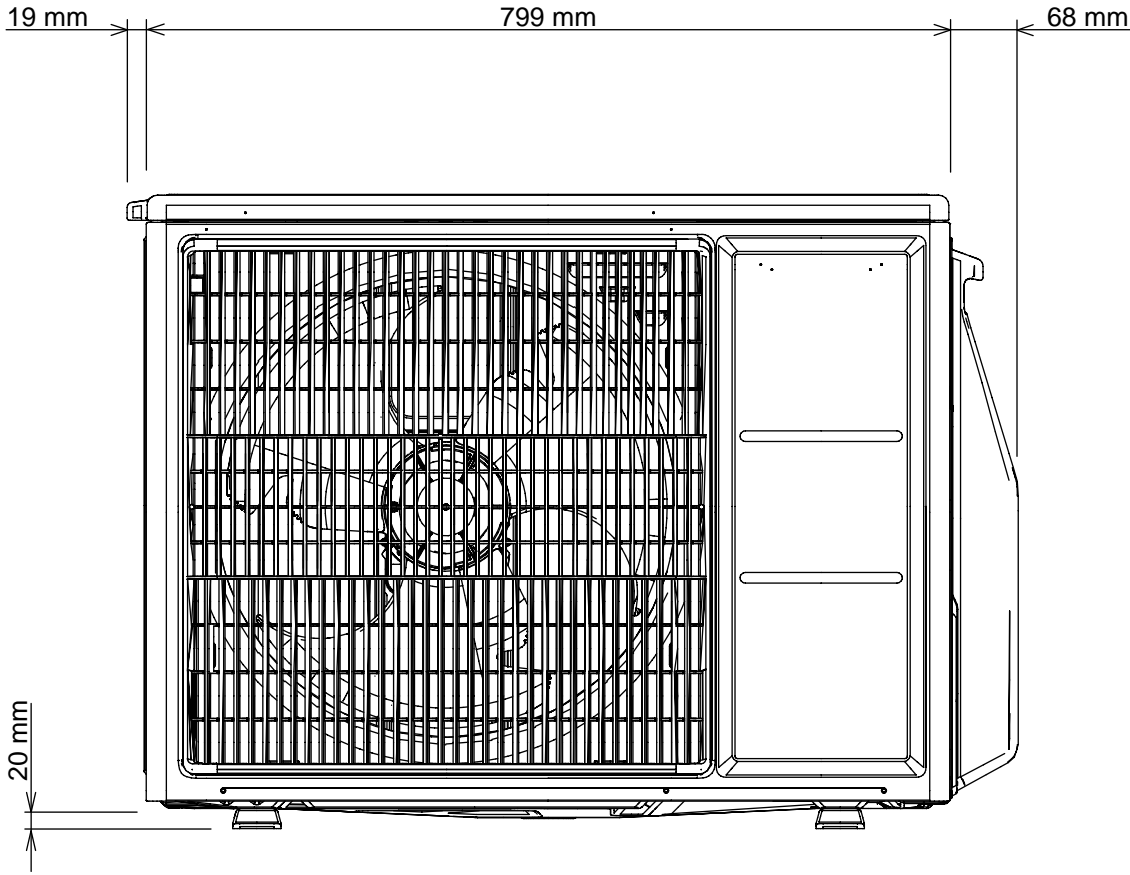
INDOOR UNIT
ASYG18KLCA
ASYG24KLCA



OUTDOOR UNIT
AOYG18KLTA

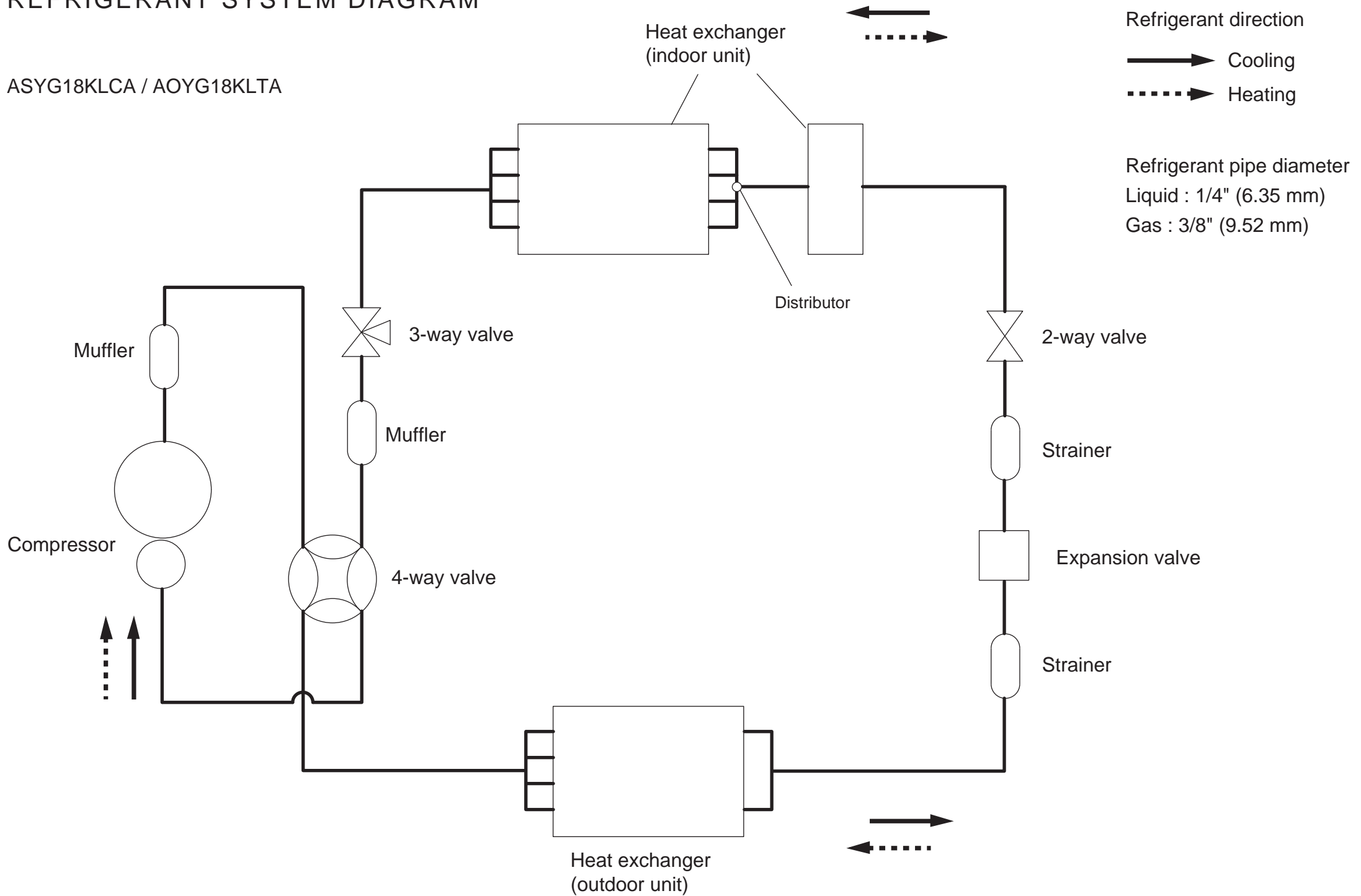


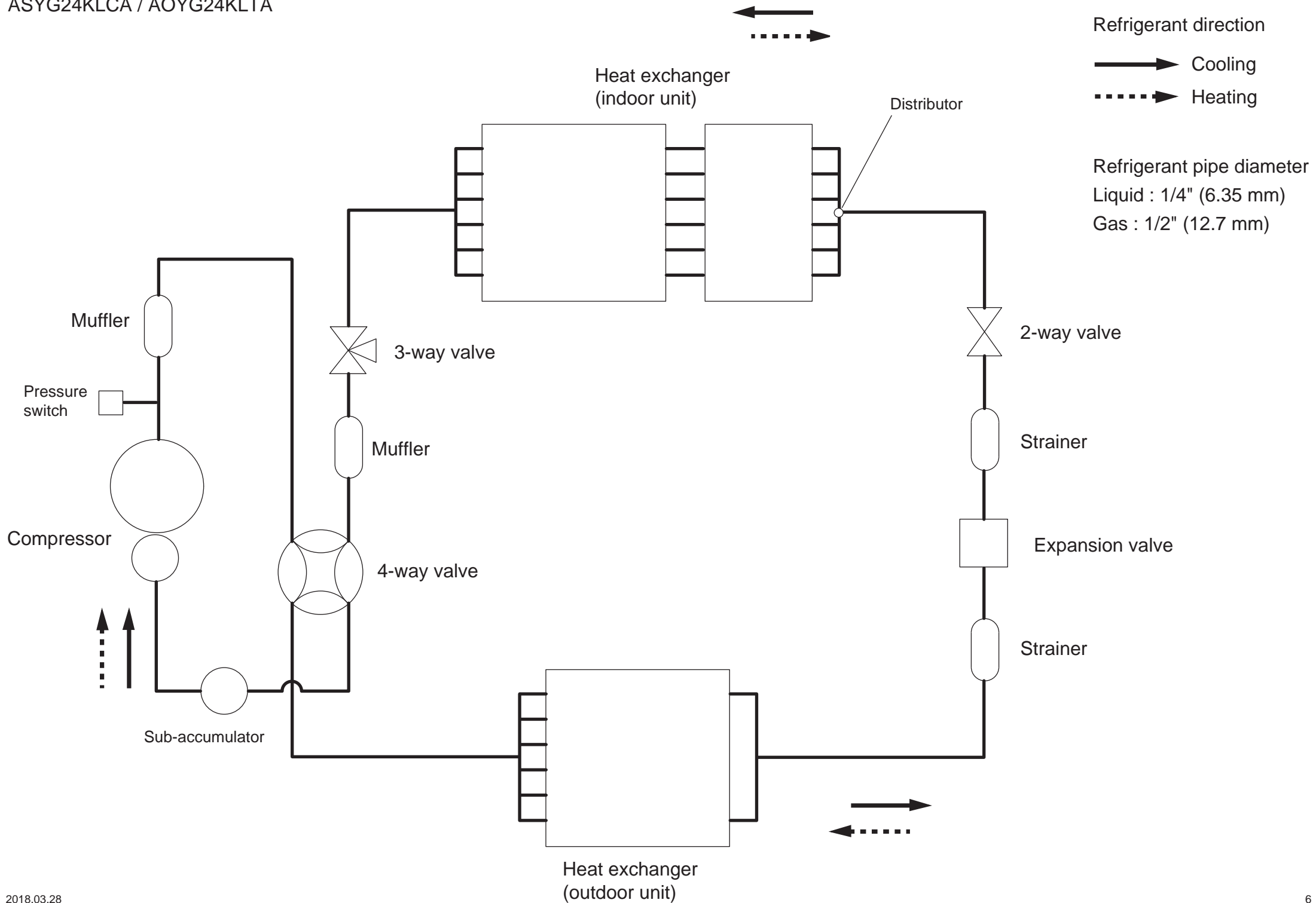
OUTDOOR UNIT
AOYG24KLTA



REFRIGERANT SYSTEM DIAGRAM

ASYG18KLCA / AOYG18KLTA

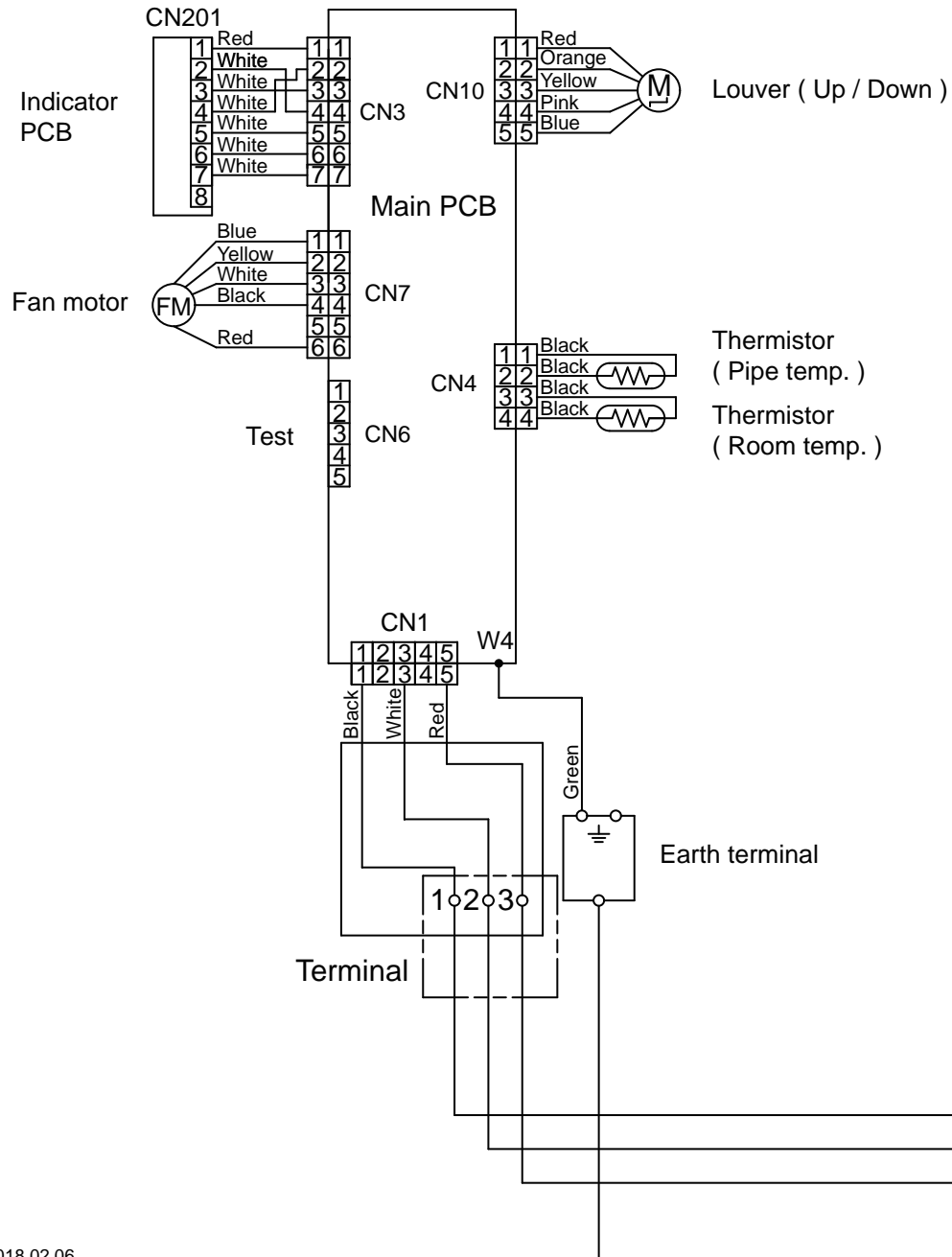




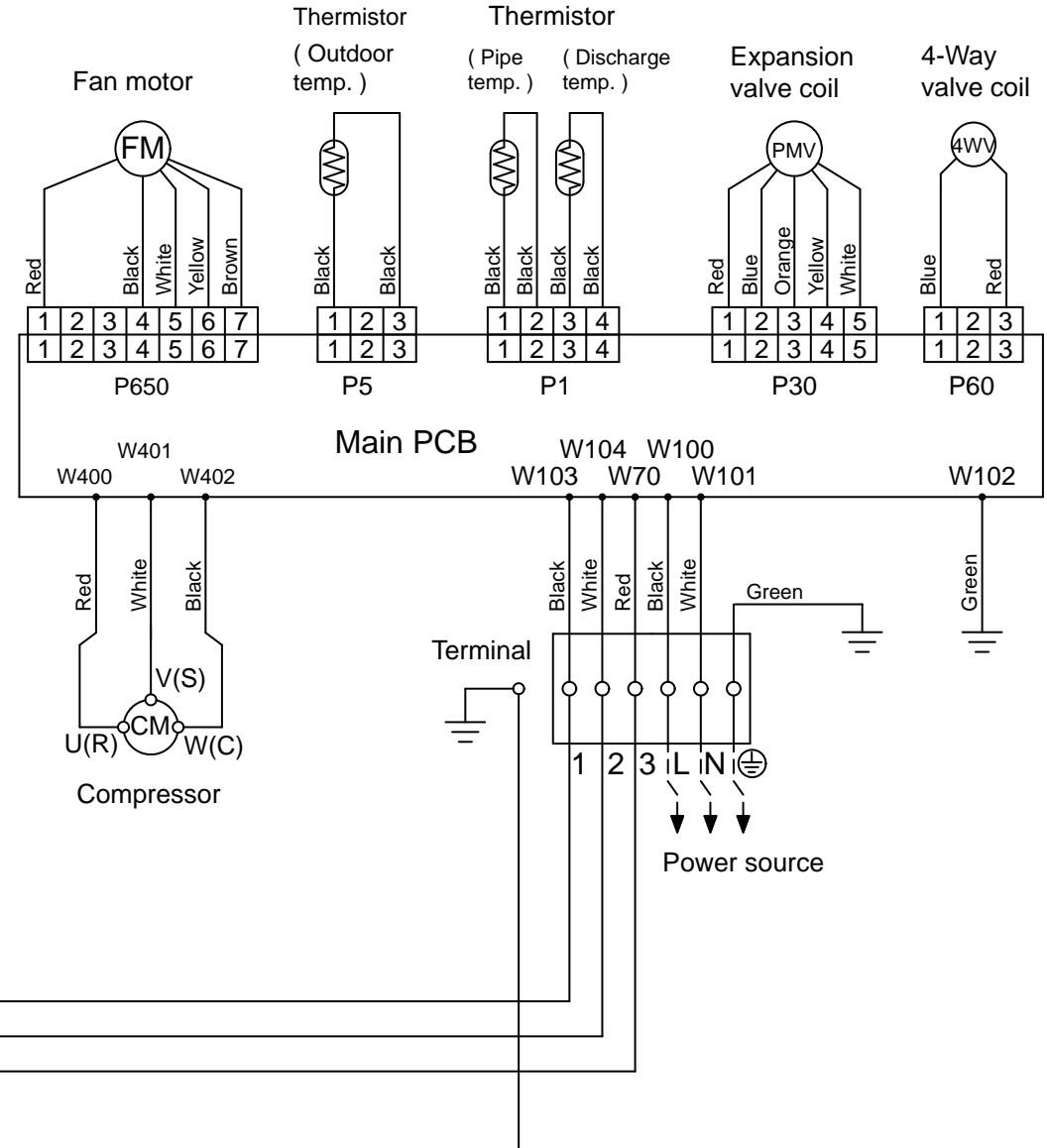
CIRCUIT DIAGRAM

ASYG18KLCA / AOYG18KLTA

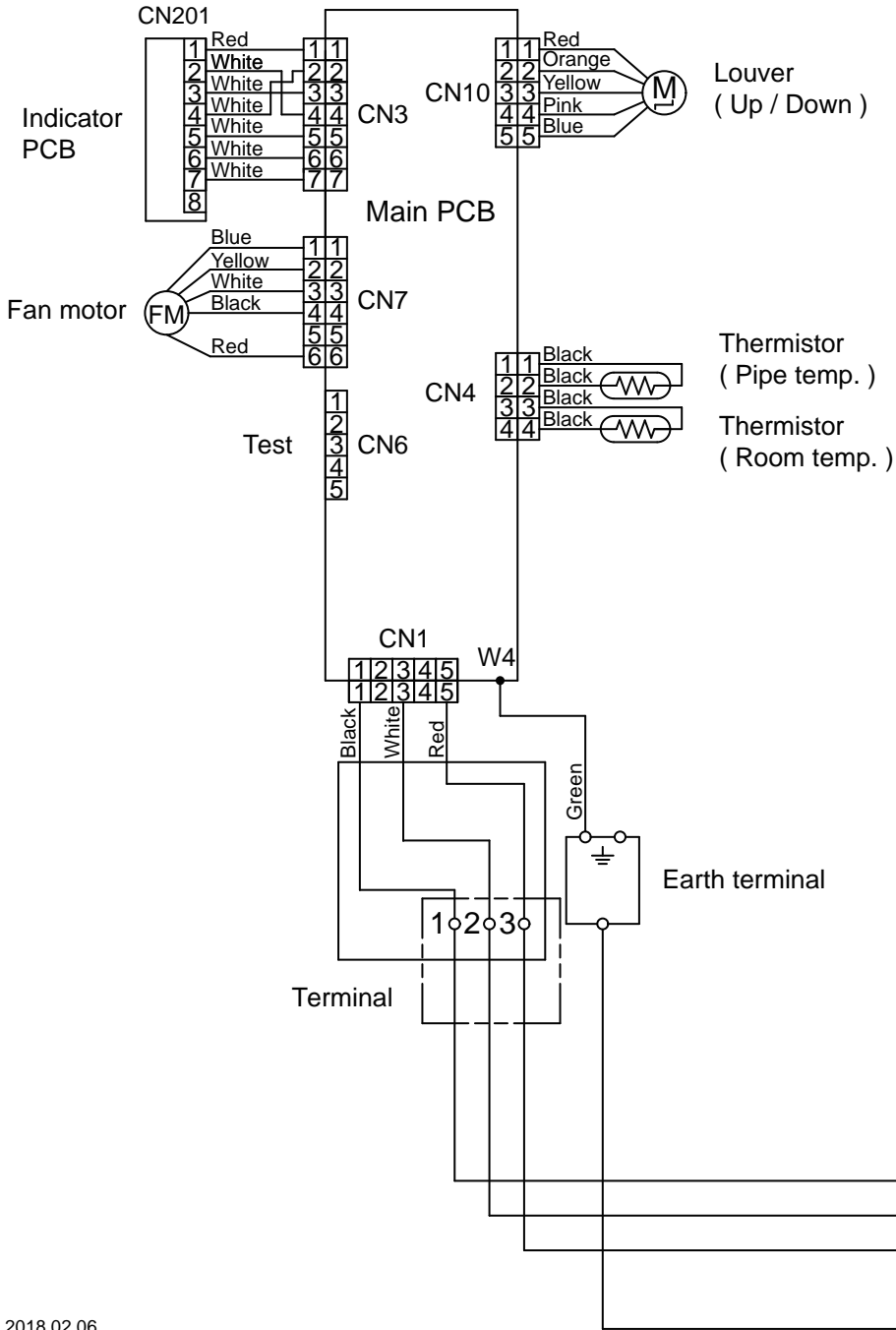
INDOOR UNIT



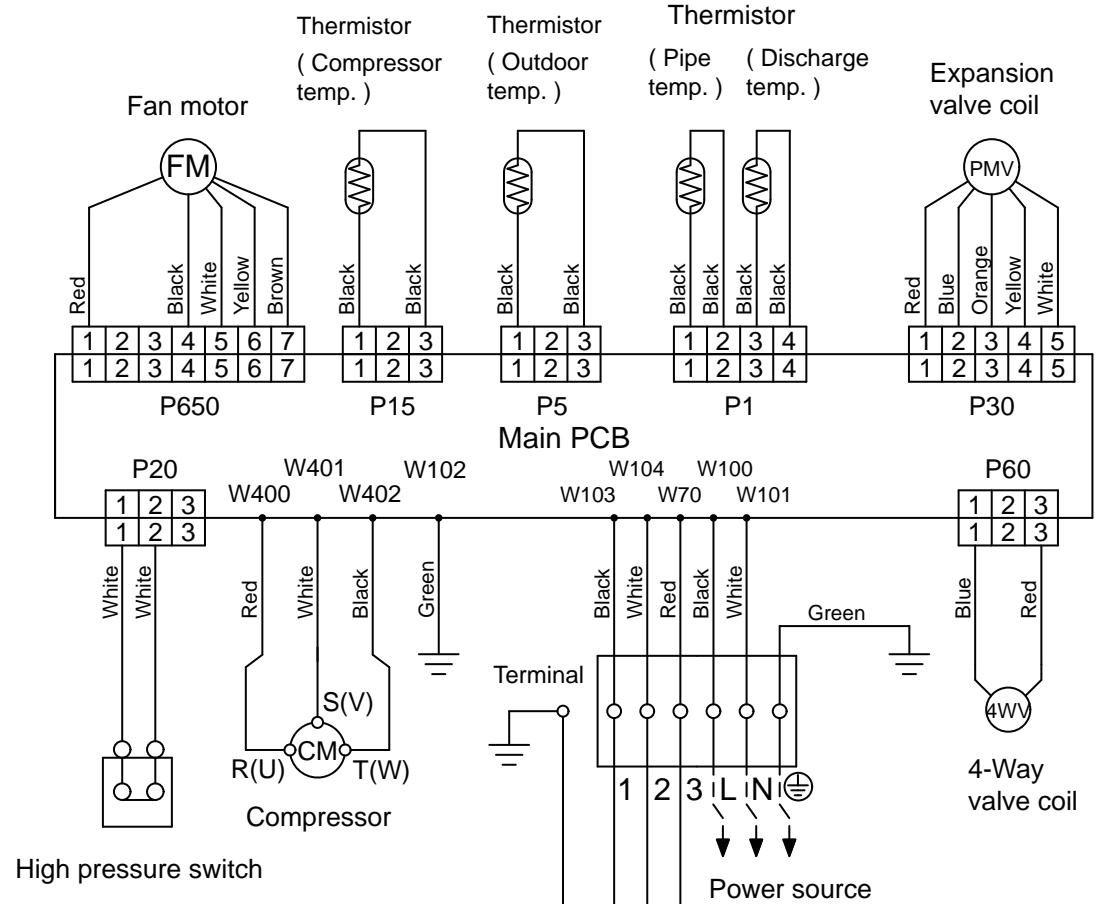
OUTDOOR UNIT



INDOOR UNIT



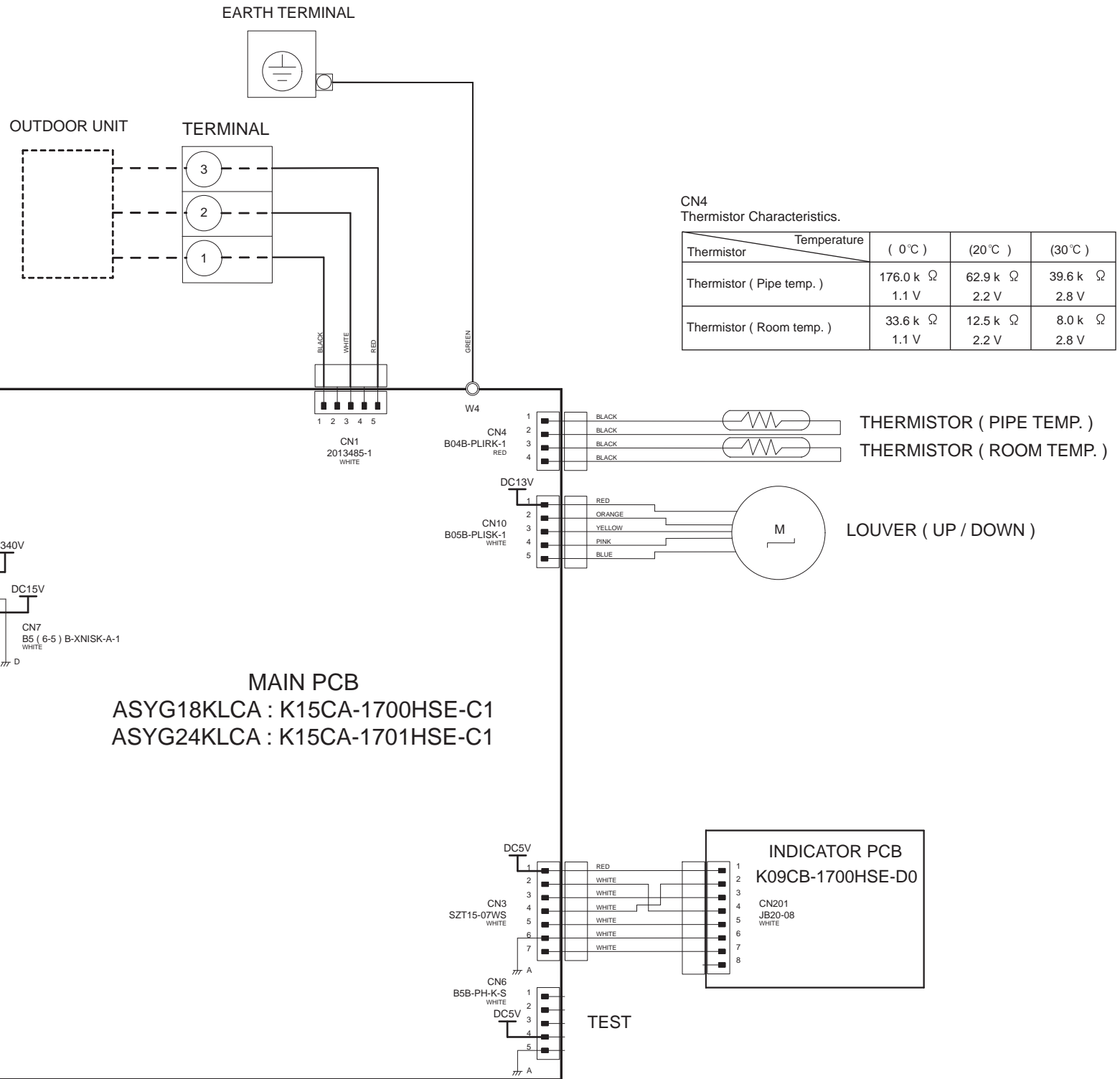
OUTDOOR UNIT



PCB CIRCUIT DIAGRAM

INDOOR UNIT

CONTROL UNIT
 ASYG18KLCA : EZ-01711HSE
 ASYG24KLCA : EZ-01712HSE



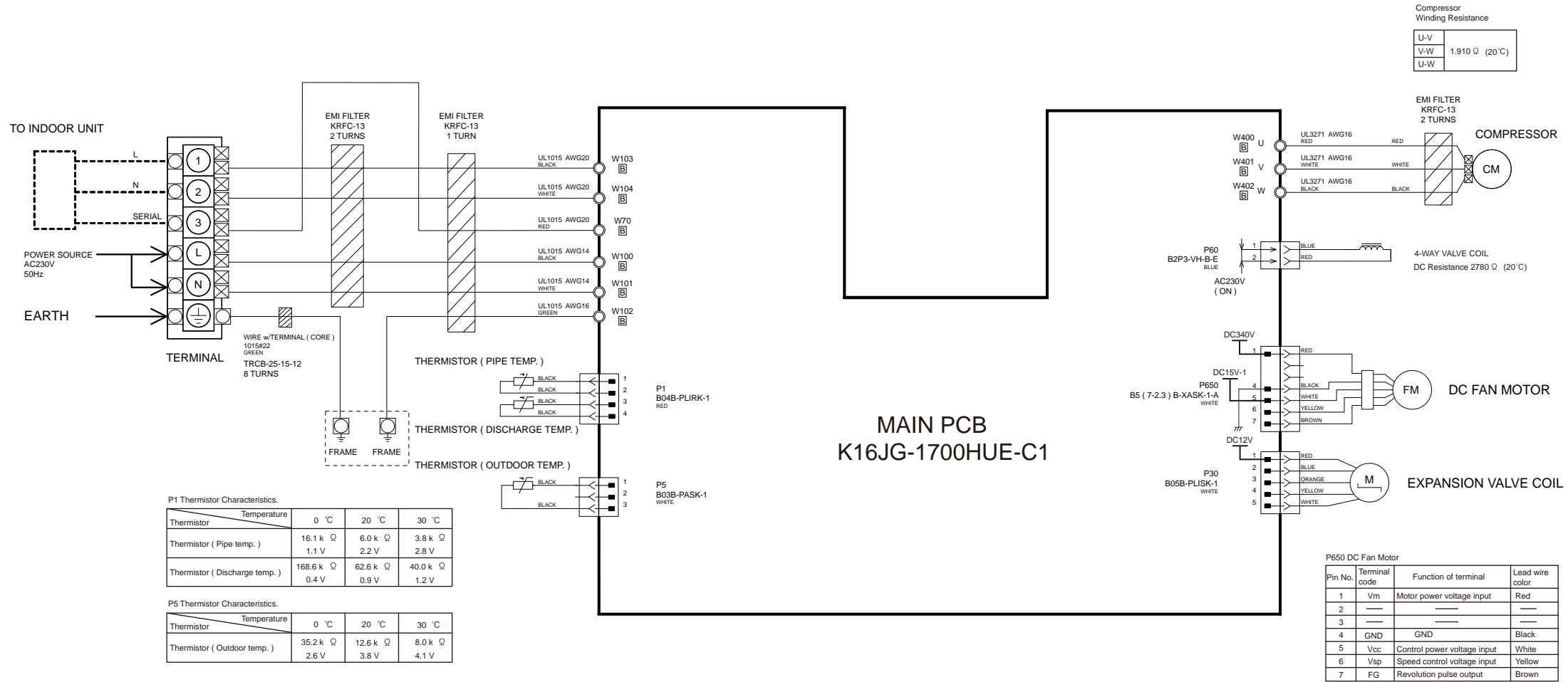
CN4
Thermistor Characteristics.

Thermistor	Temperature (0℃)	(20℃)	(30℃)
Thermistor (Pipe temp.)	176.0 k Ω 1.1 V	62.9 k Ω 2.2 V	39.6 k Ω 2.8 V
Thermistor (Room temp.)	33.6 k Ω 1.1 V	12.5 k Ω 2.2 V	8.0 k Ω 2.8 V

CN7 DC Fan motor

Pin No.	Terminal code	Function of terminal	Lead wire color
6	Vm	Motor power voltage input	Red
5	---	---	---
4	GND	GND	Black
3	Vcc	Control power voltage input	White
2	Vsp	Speed control voltage input	Yellow
1	FG	Revolution pulse output	Blue

INVERTER ASSEMBLY
EZ-0170CHUE



Compressor Winding Resistance

U-V	1.910 Ω (20 °C)
V-W	
U-W	

P1 Thermistor Characteristics.

Thermistor	Temperature	0 °C	20 °C	30 °C
Thermistor (Pipe temp.)		16.1 k Ω 1.1 V	6.0 k Ω 2.2 V	3.8 k Ω 2.8 V
Thermistor (Discharge temp.)		168.6 k Ω 0.4 V	62.6 k Ω 0.9 V	40.0 k Ω 1.2 V

P5 Thermistor Characteristics.

Thermistor	Temperature	0 °C	20 °C	30 °C
Thermistor (Outdoor temp.)		35.2 k Ω 2.6 V	12.6 k Ω 3.8 V	8.0 k Ω 4.1 V

P650 DC Fan Motor

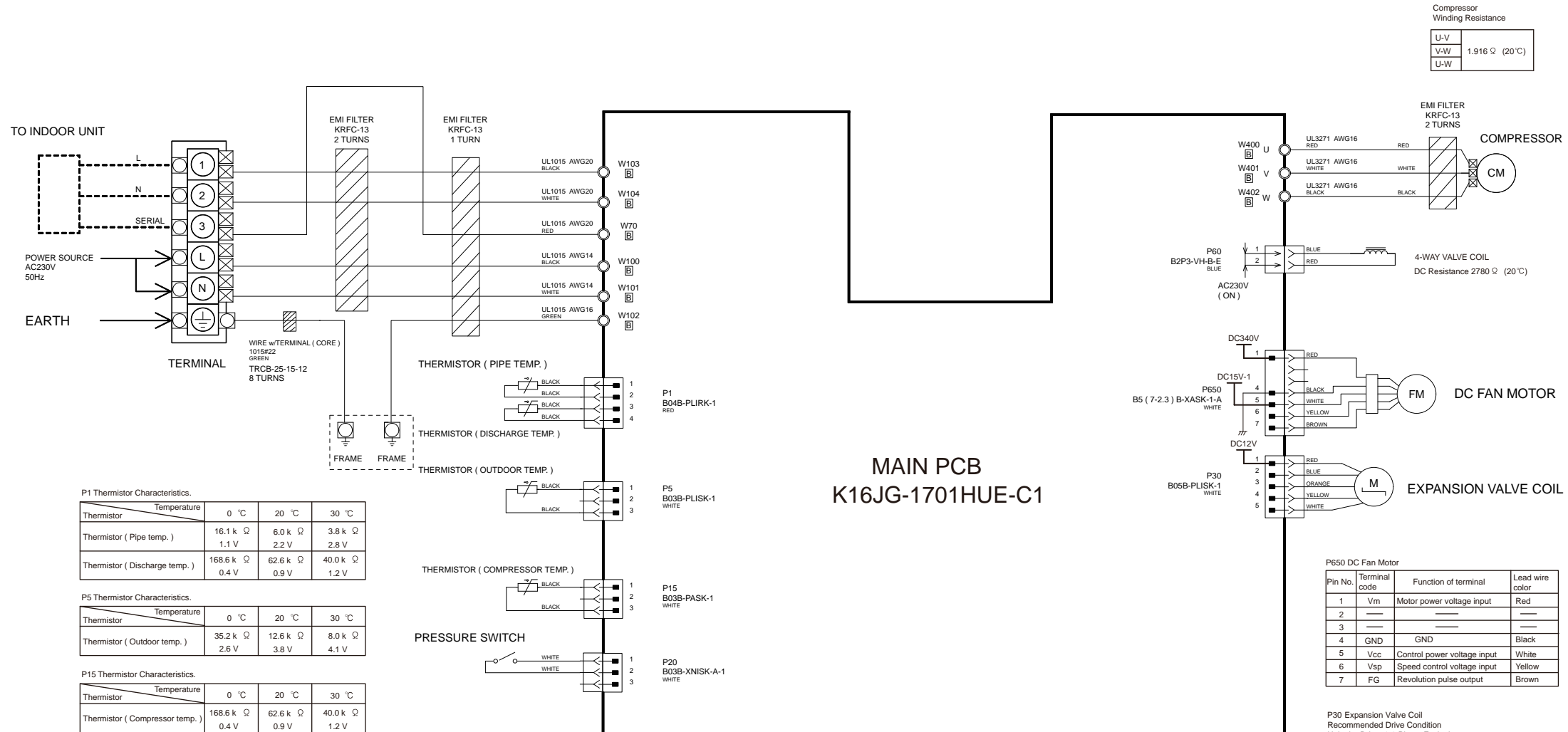
Pin No.	Terminal code	Function of terminal	Lead wire color
1	Vm	Motor power voltage input	Red
2	---	---	---
3	---	---	---
4	GND	GND	Black
5	Vcc	Control power voltage input	White
6	Vsp	Speed control voltage input	Yellow
7	FG	Revolution pulse output	Brown

P30 Expansion Valve Coil
Recommended Drive Condition
Unipolar Drive, 1-2 Phase Excitation.

1(Red) - 3(Blue)	Coil resistance ≈ 46.0 Ω (20 °C)
1(Red) - 4(Orange)	
1(Red) - 5(Yellow)	
1(Red) - 6(White)	

OUTDOOR UNIT
AOYG24KLTA

INVERTER ASSEMBLY
EZ-0170DHUE



Compressor Winding Resistance

U-V	1.916 Ω (20°C)
V-W	
U-W	

P1 Thermistor Characteristics.

Thermistor	Temperature	0 °C	20 °C	30 °C
Thermistor (Pipe temp.)		16.1 k Ω	6.0 k Ω	3.8 k Ω
		1.1 V	2.2 V	2.8 V
Thermistor (Discharge temp.)		168.6 k Ω	62.6 k Ω	40.0 k Ω
		0.4 V	0.9 V	1.2 V

P5 Thermistor Characteristics.

Thermistor	Temperature	0 °C	20 °C	30 °C
Thermistor (Outdoor temp.)		35.2 k Ω	12.6 k Ω	8.0 k Ω
		2.6 V	3.8 V	4.1 V

P15 Thermistor Characteristics.

Thermistor	Temperature	0 °C	20 °C	30 °C
Thermistor (Compressor temp.)		168.6 k Ω	62.6 k Ω	40.0 k Ω
		0.4 V	0.9 V	1.2 V

P650 DC Fan Motor

Pin No.	Terminal code	Function of terminal	Lead wire color
1	Vm	Motor power voltage input	Red
2	---	---	---
3	---	---	---
4	GND	GND	Black
5	Vcc	Control power voltage input	White
6	Vsp	Speed control voltage input	Yellow
7	FG	Revolution pulse output	Brown

P30 Expansion Valve Coil
Recommended Drive Condition
Unipolar Drive, 1-2 Phase Excitation.

1(Red) - 3(Blue)	Coil resistance ≈ 46.0 Ω (20 °C)
1(Red) - 4(Orange)	
1(Red) - 5(Yellow)	
1(Red) - 6(White)	

ERROR DETECTION

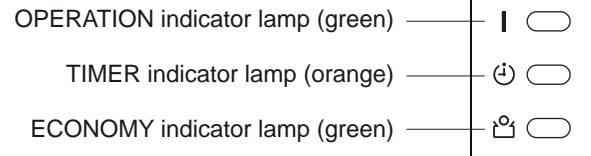
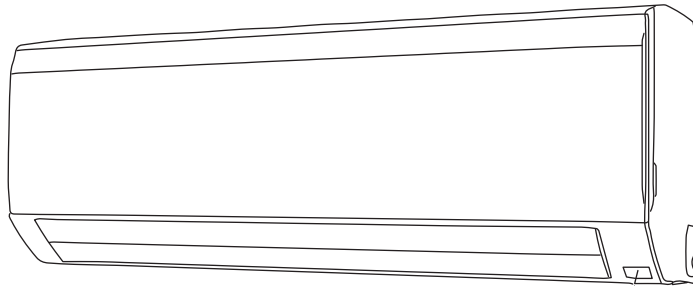
If you use a wireless remote controller, the lamp on the photo detector unit will output error codes by way of blinking patterns.

If you use a wired remote controller, error codes will appear on the remote control display.

See the lamp blinking patterns and error codes in the table.

An error display is displayed only during operation.

Troubleshooting with the indoor unit display



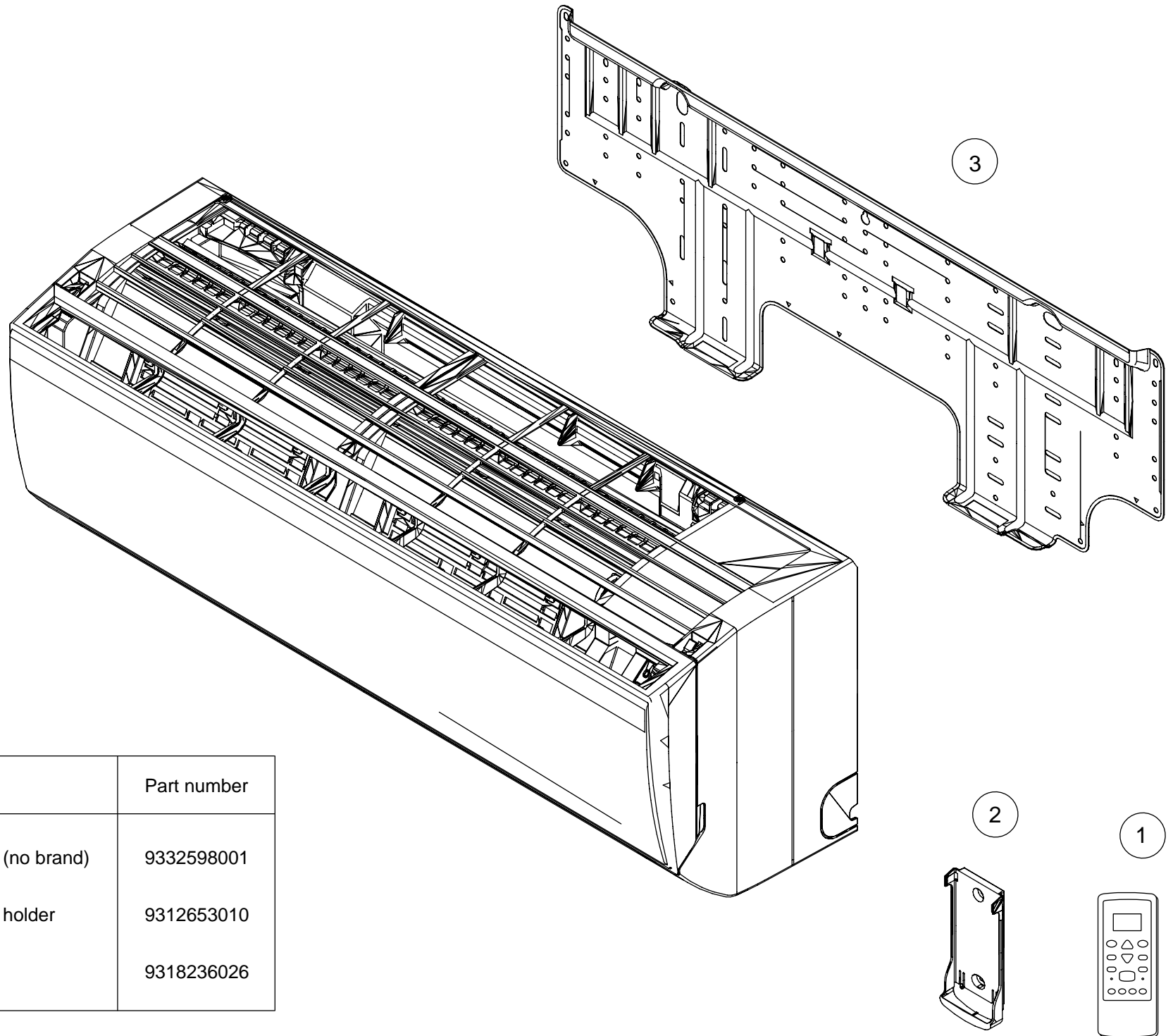
Display mode ● : 0.5s ON / 0.5s OFF
 ◇ : 0.1s ON / 0.1s OFF
 () : Number of flashing

Error display			Error code	Description
OPERATION lamp (green)	TIMER lamp (orange)	ECONOMY lamp (green)		
●(1)	●(1)	◇	11	Serial communication error
●(1)	●(2)	◇	12	• Wired remote controller communication error • Server room control communication error
●(1)	●(5)	◇	15	Check run unfinished Automatic airflow adjustment error
●(1)	●(6)	◇	16	Peripheral unit transmission PCB connection error
●(1)	●(8)	◇	18	External communication error
●(2)	●(1)	◇	21	Unit number or Refrigerant circuit address setting error [Simultaneous Multi]
●(2)	●(2)	◇	22	Indoor unit capacity error
●(2)	●(3)	◇	23	Combination error
●(2)	●(4)	◇	24	• Connection unit number error (indoor slave unit) [Simultaneous Multi] • Connection unit number error (indoor unit or branch unit) [Flexible Multi]
●(2)	●(6)	◇	26	Indoor unit address setting error
●(2)	●(7)	◇	27	Primary unit, secondary unit setup error [Simultaneous Multi]
●(2)	●(9)	◇	29	Connection unit number error in wired remote controller system
●(3)	●(1)	◇	31	Power supply interruption error
●(3)	●(2)	◇	32	Indoor unit PCB model information error
●(3)	●(3)	◇	33	Indoor unit motor electricity consumption detection error
●(3)	●(5)	◇	35	Manual auto switch error
●(3)	●(9)	◇	39	Indoor unit power supply error for fan motor
●(3)	●(10)	◇	3A	Indoor unit communication circuit (wired remote controller) error
●(4)	●(1)	◇	41	Room temp. sensor error
●(4)	●(2)	◇	42	Indoor unit heat ex. middle temp. sensor error
●(4)	●(4)	◇	44	Human sensor error
●(5)	●(1)	◇	51	Indoor unit fan motor error
●(5)	●(3)	◇	53	Drain pump error
●(5)	●(4)	◇	54	Electric air cleaner reverse VDD error
●(5)	●(5)	◇	55	Filter set error
●(5)	●(7)	◇	57	Damper error
●(5)	●(8)	◇	58	Intake grille error
●(5)	●(9)	◇	59	Indoor unit fan motor 2 error (Left side fan)
●(5)	●(10)	◇	5A	Indoor unit fan motor 3 error (Right side fan)

Error display			Error code	Description
OPERATION lamp (green)	TIMER lamp (orange)	ECONOMY lamp (green)		
●(5)	●(15)	◇	5U	Indoor unit error
●(6)	●(1)	◇	61	Outdoor unit reverse/missing phase and wiring error
●(6)	●(2)	◇	62	Outdoor unit main PCB model information error or communication error
●(6)	●(3)	◇	63	Inverter error
●(6)	●(4)	◇	64	Active filter error, PFC circuit error
●(6)	●(5)	◇	65	Trip terminal L error
●(6)	●(8)	◇	68	Outdoor unit rush current limiting resistor temp. rise error
●(6)	●(10)	◇	6A	Display PCB microcomputers communication error
●(7)	●(1)	◇	71	Discharge temp. sensor error
●(7)	●(2)	◇	72	Compressor temp. sensor error
●(7)	●(3)	◇	73	Outdoor unit Heat Ex. liquid temp. sensor error
●(7)	●(4)	◇	74	Outdoor temp. sensor error
●(7)	●(5)	◇	75	Suction Gas temp. sensor error
●(7)	●(6)	◇	76	• 2-way valve temp. sensor error • 3-way valve temp. sensor error
●(7)	●(7)	◇	77	Heat sink temp. sensor error
●(8)	●(2)	◇	82	• Sub-cool Heat Ex. gas inlet temp. sensor error • Sub-cool Heat Ex. gas outlet temp. sensor error
●(8)	●(3)	◇	83	Liquid pipe temp. sensor error
●(8)	●(4)	◇	84	Current sensor error
●(8)	●(6)	◇	86	• Discharge pressure sensor error • Suction pressure sensor error • High pressure switch error
●(9)	●(4)	◇	94	Trip detection
●(9)	●(5)	◇	95	Compressor rotor position detection error (permanent stop)
●(9)	●(7)	◇	97	Outdoor unit fan motor 1 error
●(9)	●(8)	◇	98	Outdoor unit fan motor 2 error
●(9)	●(9)	◇	99	4-way valve error
●(9)	●(10)	◇	9A	Coil (expansion valve) error
●(10)	●(1)	◇	A1	Discharge temp. error
●(10)	●(3)	◇	A3	Compressor temp. error
●(10)	●(4)	◇	A4	High pressure error
●(10)	●(5)	◇	A5	Low pressure error
●(13)	●(2)	◇	J2	Branch boxes error [Flexible Multi]

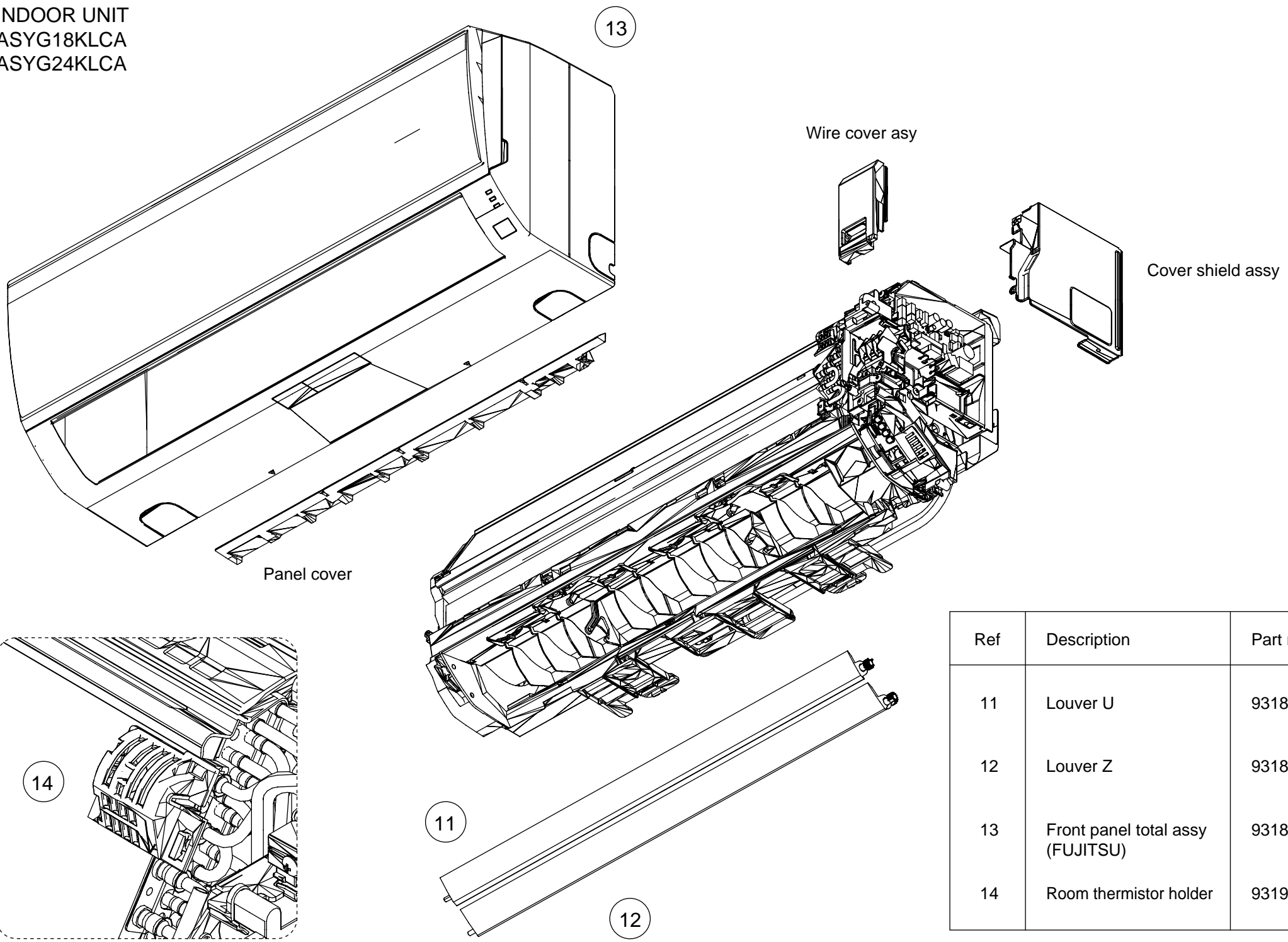
PARTS

INDOOR UNIT
ASYG18KLCA
ASYG24KLCA



Ref	Description	Part number
1	Remote control (no brand)	9332598001
2	Remote control holder	9312653010
3	Bracket panel	9318236026

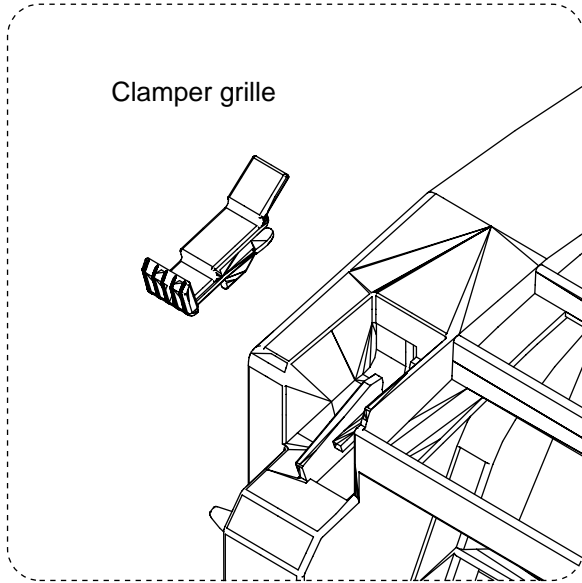
INDOOR UNIT
 ASYG18KLCA
 ASYG24KLCA



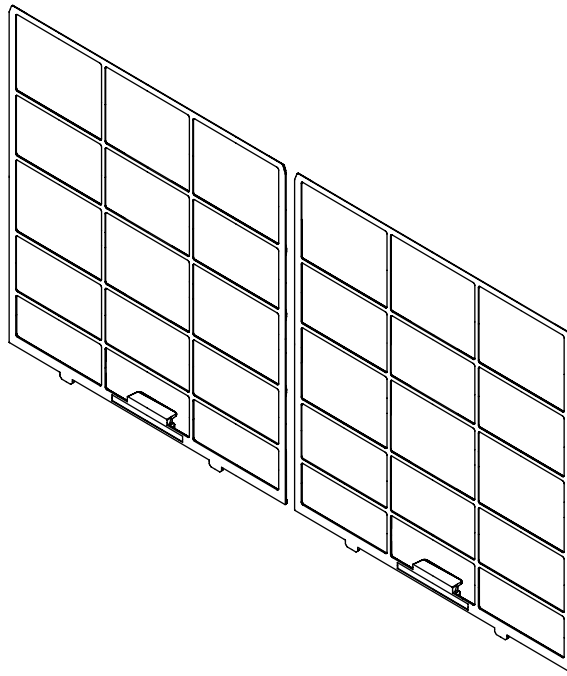
Ref	Description	Part number
11	Louver U	9318224016
12	Louver Z	9318225013
13	Front panel total asy (FUJITSU)	9318423235
14	Room thermistor holder	9319068008

INDOOR UNIT
 ASYG18KLCA
 ASYG24KLCA

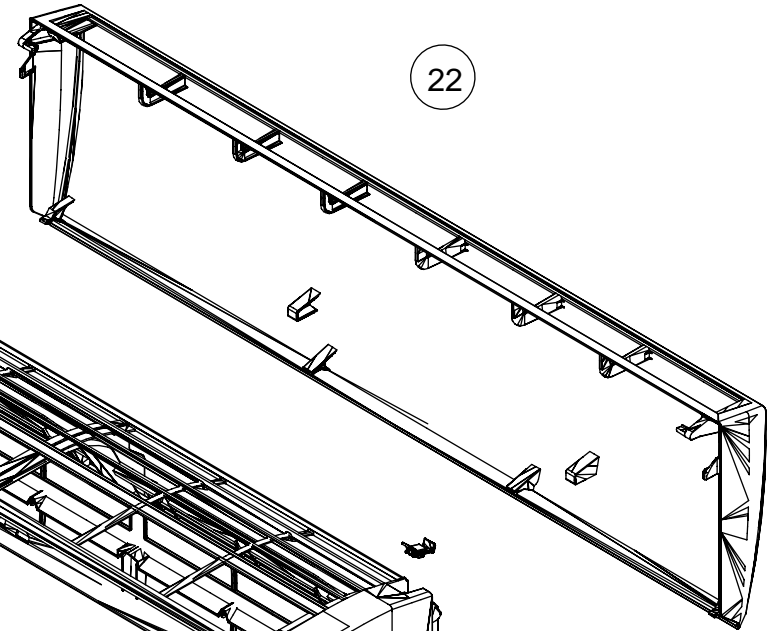
Front panel total assy



21



22

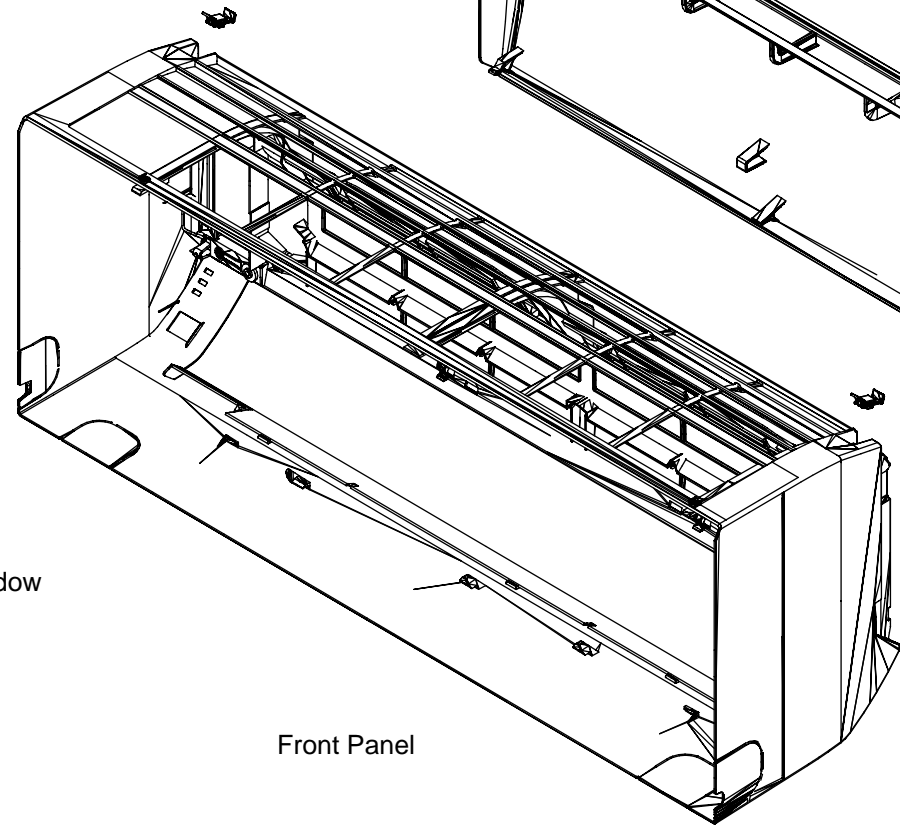


Ref	Description	Part number
21	Air filter	9318741001
22	Intake grille assy (FUJITSU)	9318424119

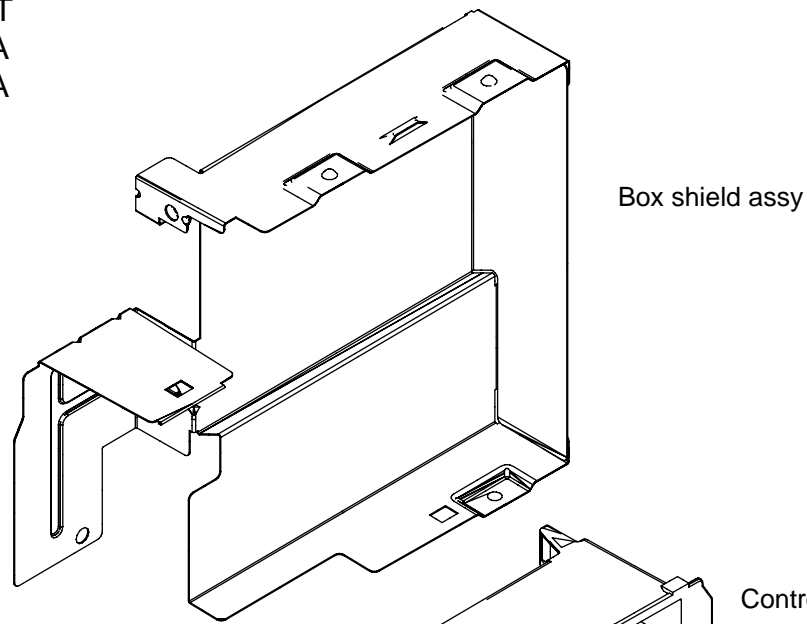
Receiver Window



Front Panel

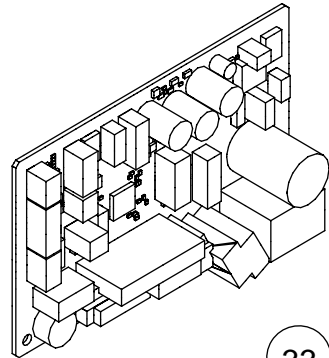
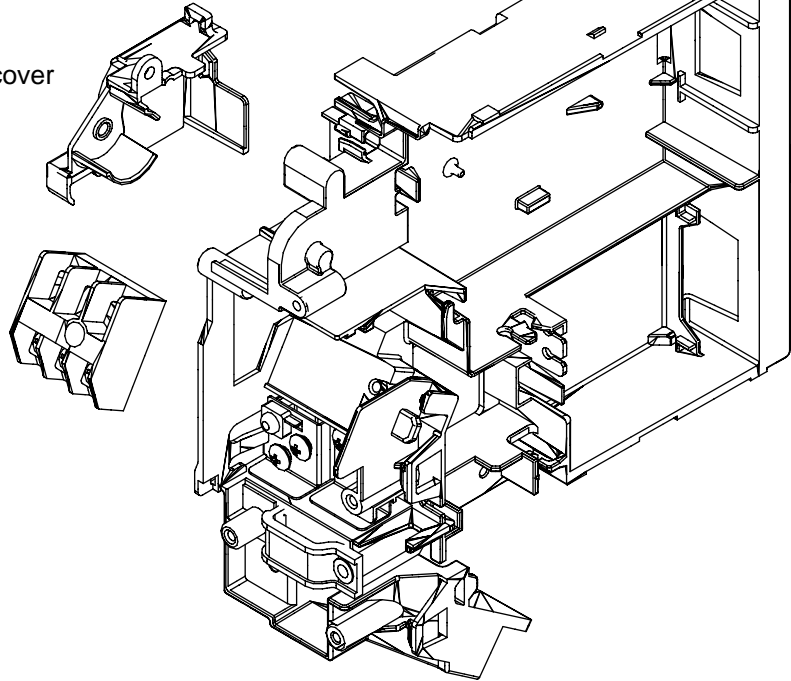


INDOOR UNIT
 ASYG18KLCA
 ASYG24KLCA



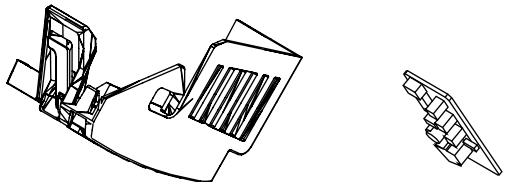
Gear cover

32



33

Display case



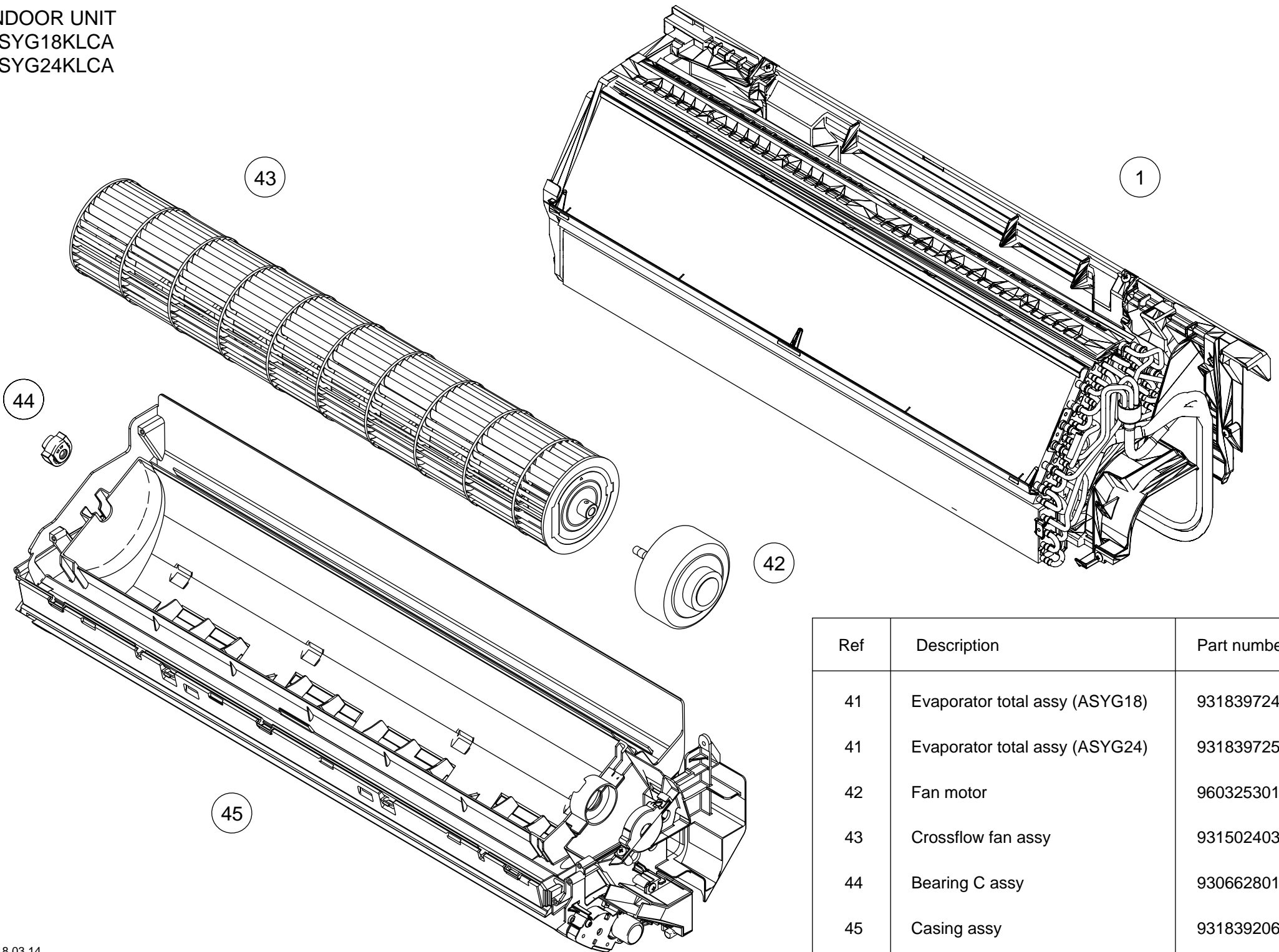
31



34

Ref	Description	Part number
31	Display PCB	9708365046
32	Terminal	9900720025
33	Main PCB (ASYG18)	9710368097
33	Main PCB (ASYG24)	9710368103
34	Thermistor assy	9900627058

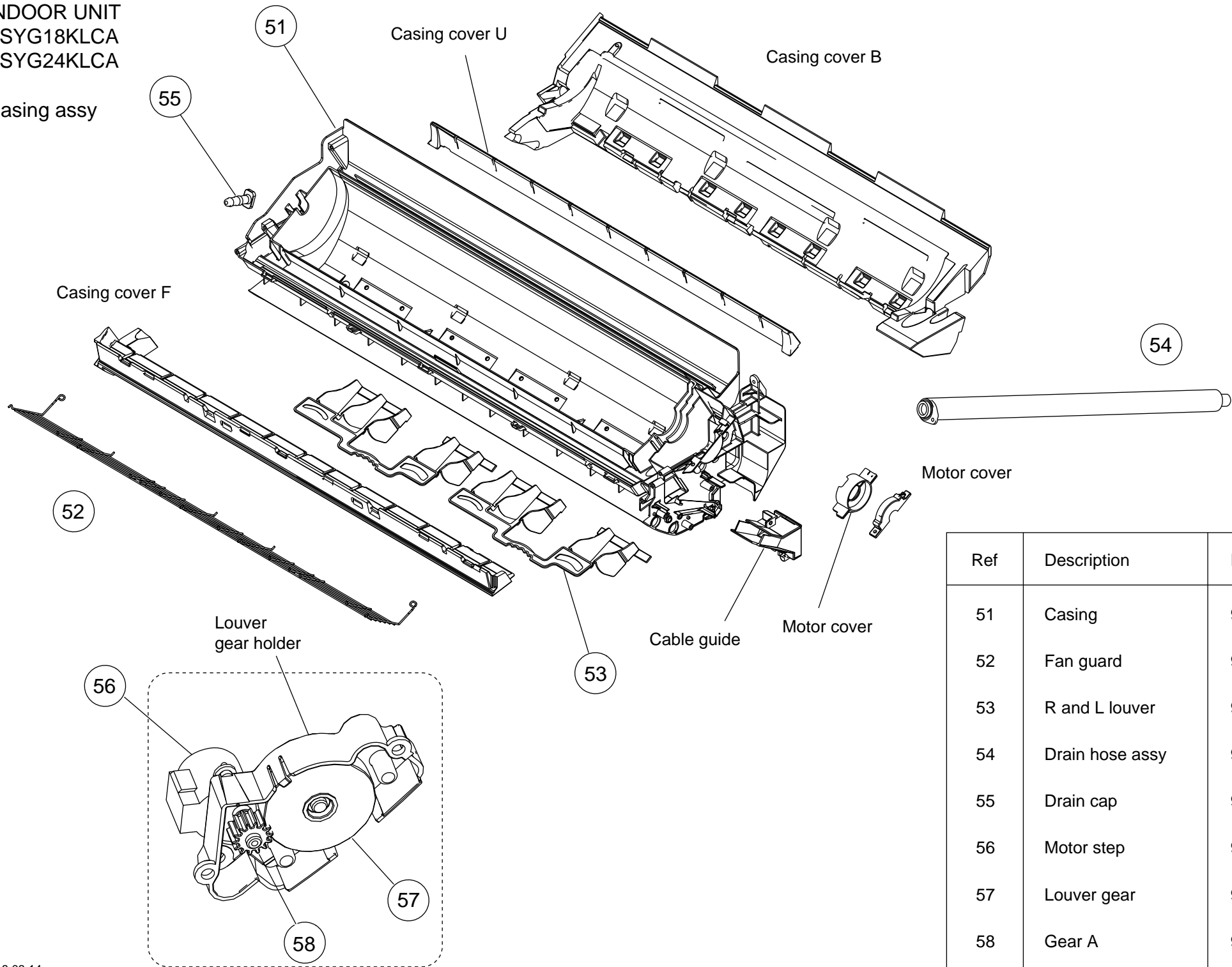
INDOOR UNIT
 ASYG18KLCA
 ASYG24KLCA



Ref	Description	Part number
41	Evaporator total assy (ASYG18)	9318397246
41	Evaporator total assy (ASYG24)	9318397253
42	Fan motor	9603253011
43	Crossflow fan assy	9315024039
44	Bearing C assy	9306628017
45	Casing assy	9318392067

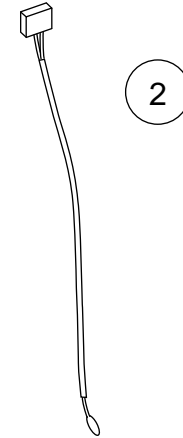
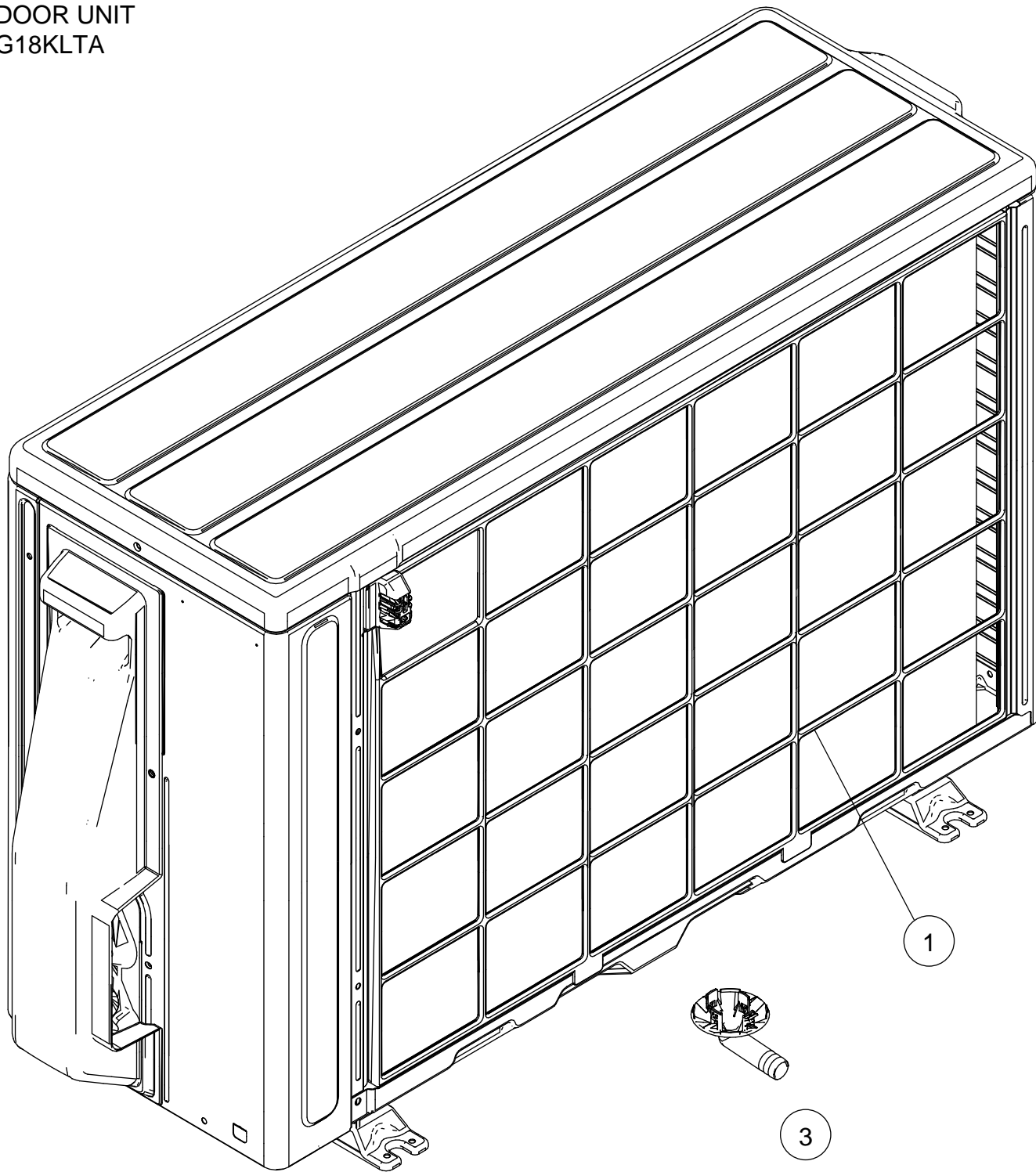
INDOOR UNIT
 ASYG18KLCA
 ASYG24KLCA

Casing assy



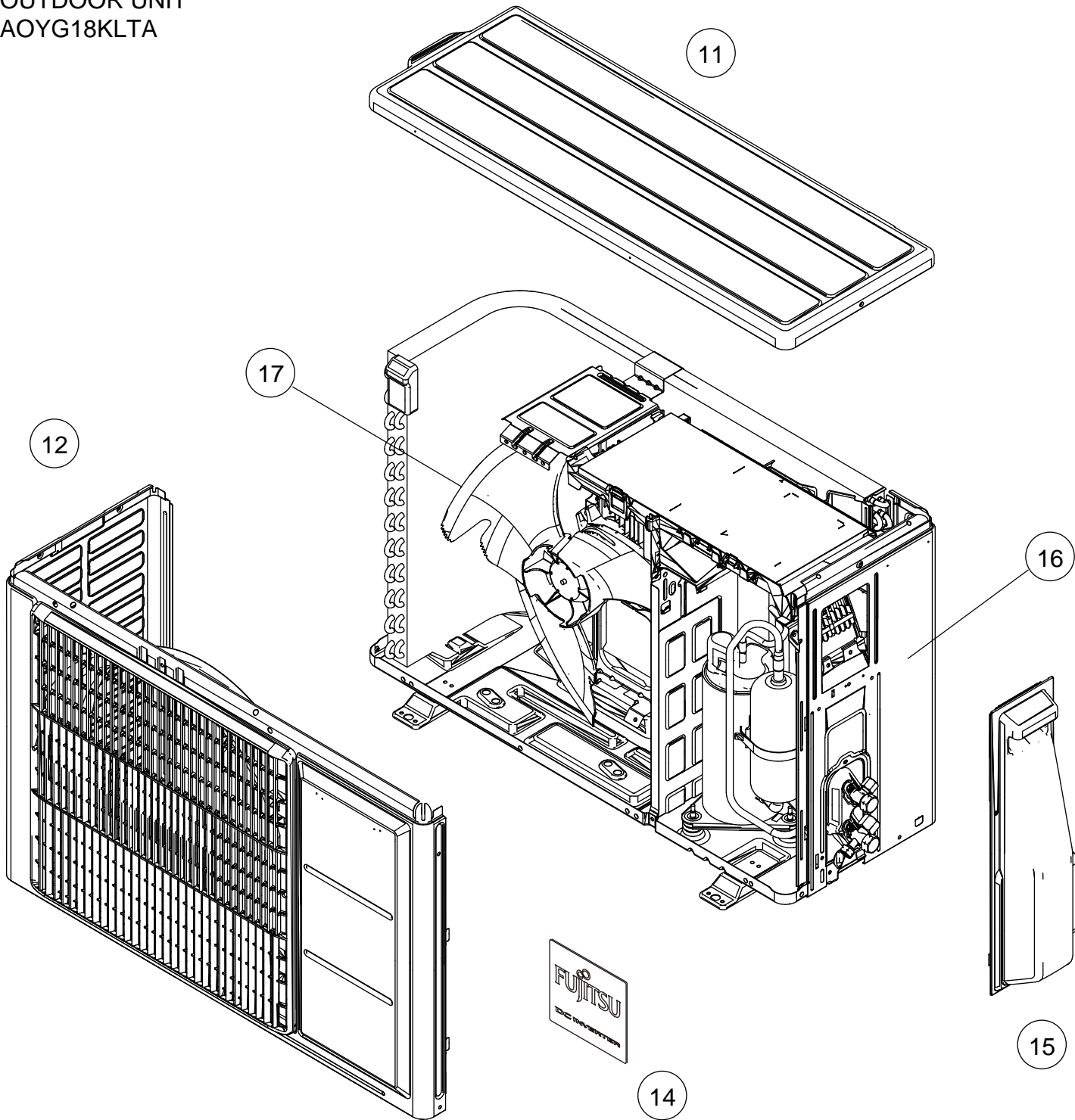
Ref	Description	Part number
51	Casing	9318212013
52	Fan guard	9318646009
53	R and L louver	9318216004
54	Drain hose assy	9316904002
55	Drain cap	9316177017
56	Motor step	9900384258
57	Louver gear	9318226003
58	Gear A	9309994003

OUTDOOR UNIT
AOYG18KLTA

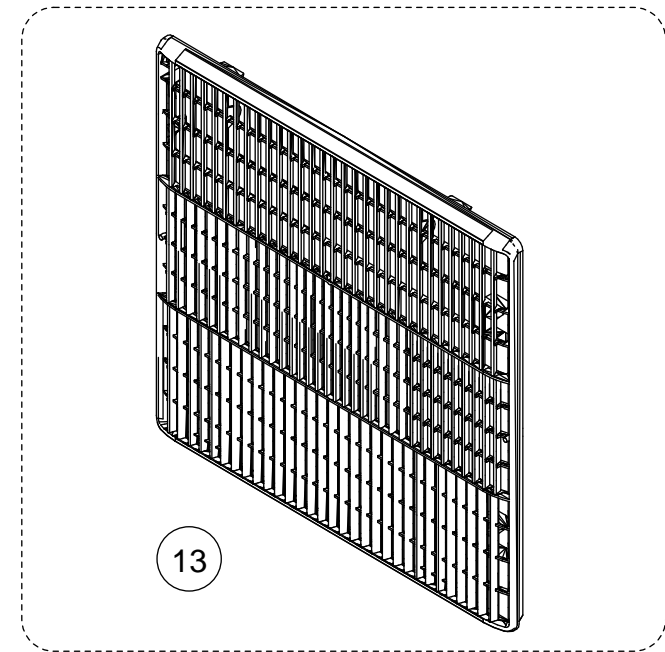


Ref.	Description	Part number
1	Protective net assy	9322811011
2	Outdoor thermistor	9900565060
3	Drain pipe	9322144003

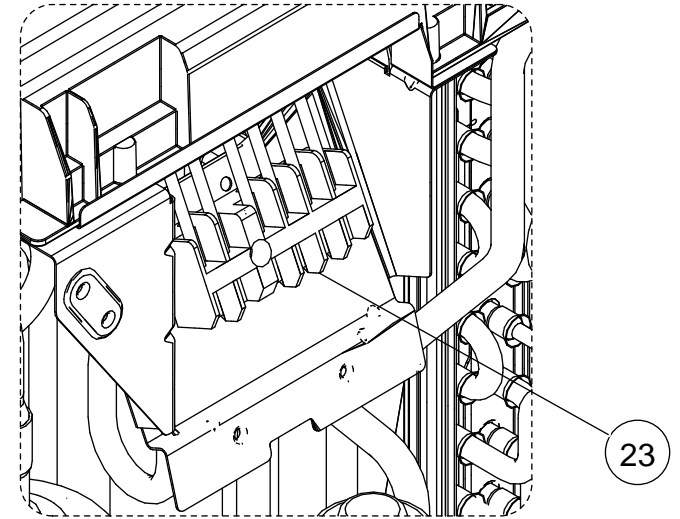
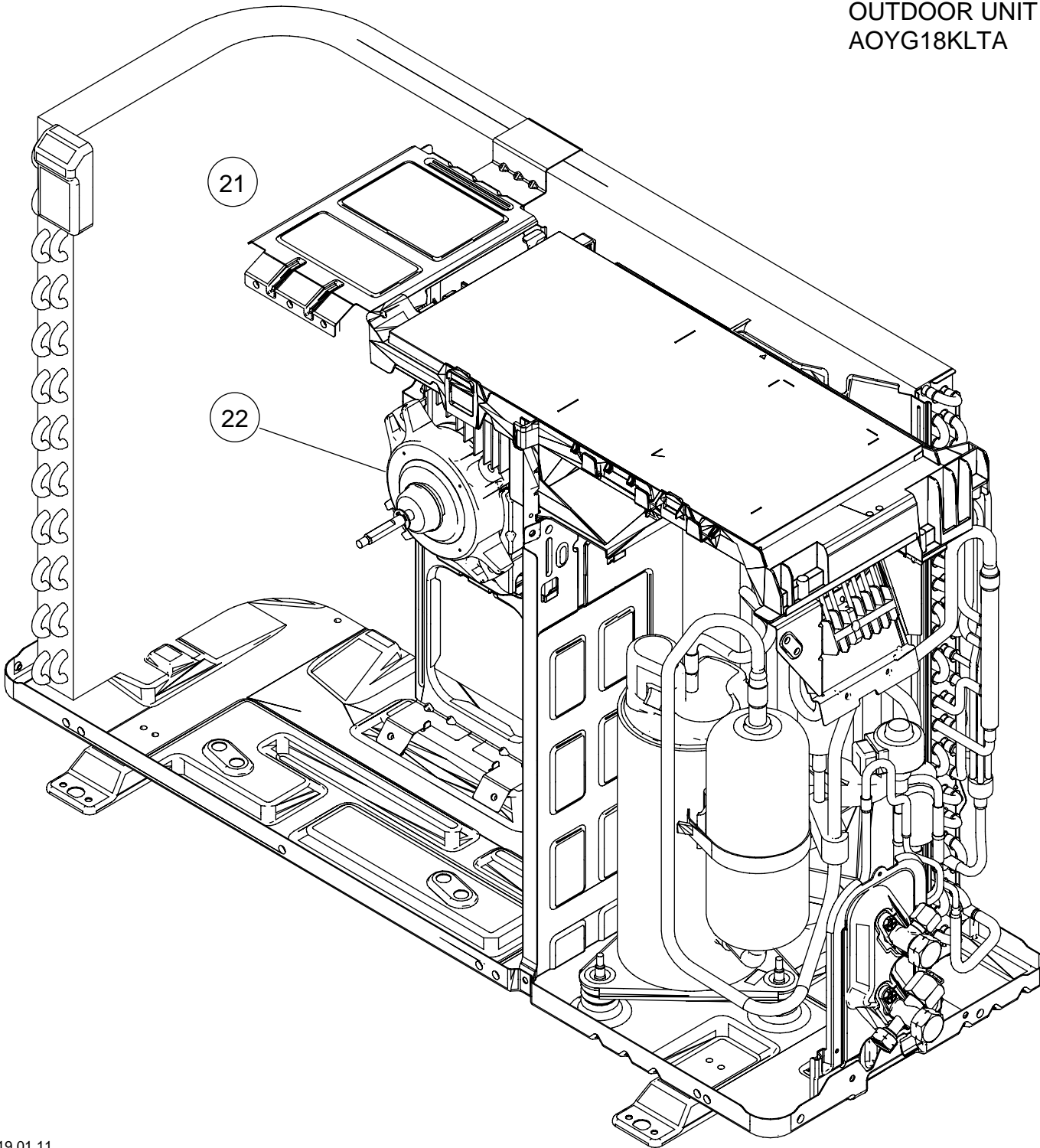
OUTDOOR UNIT
AOYG18KLTA



Ref.	Description	Part number
11	Top panel assy	9322556028
12	Front panel assy	9322555014
13	Blow grille	9322135001
14	Emblem	9319151007
15	Switch cover assy	9322570000
16	Cabinet right assy	9322552020
17	Propeller fan	9322136008

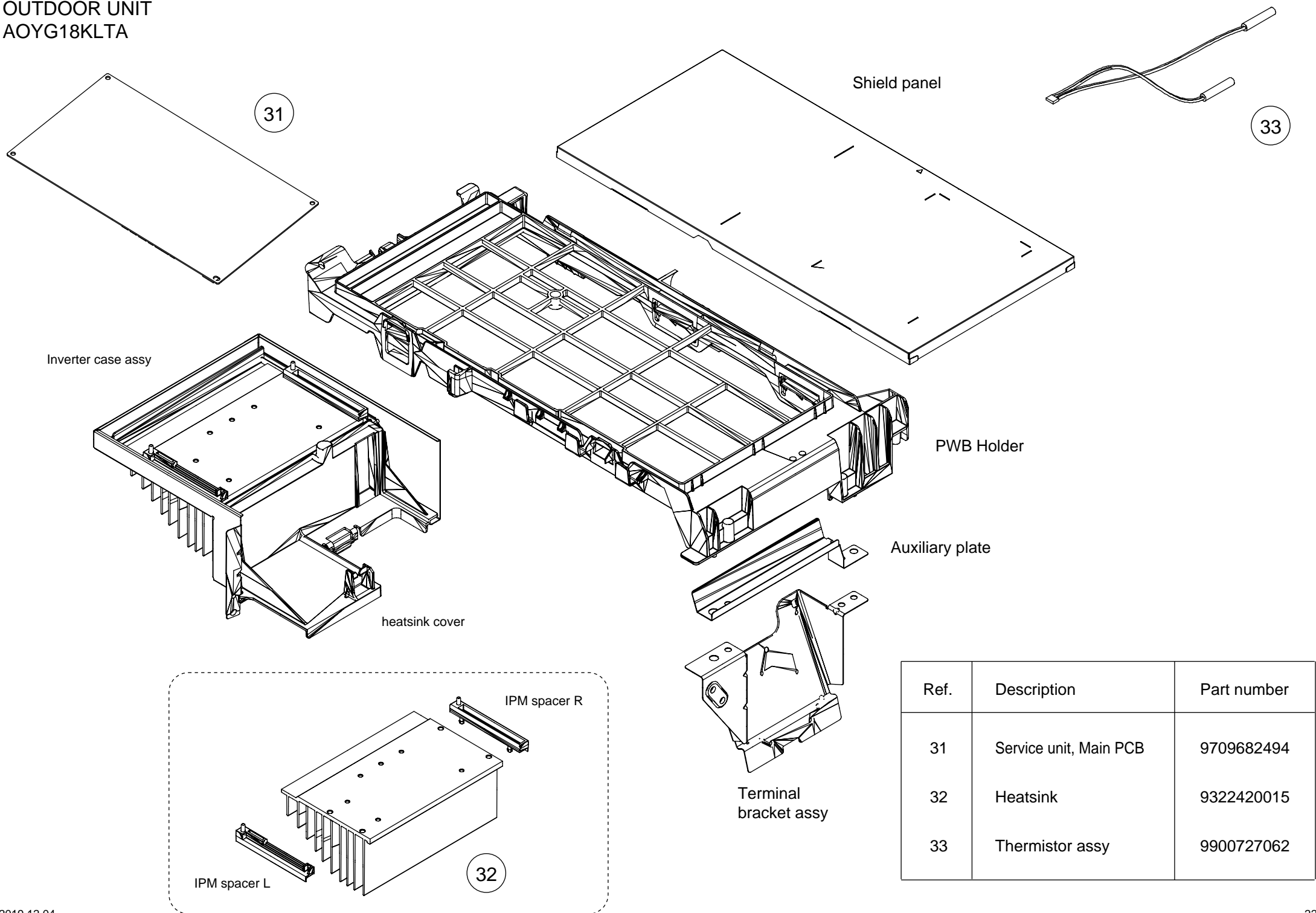


OUTDOOR UNIT
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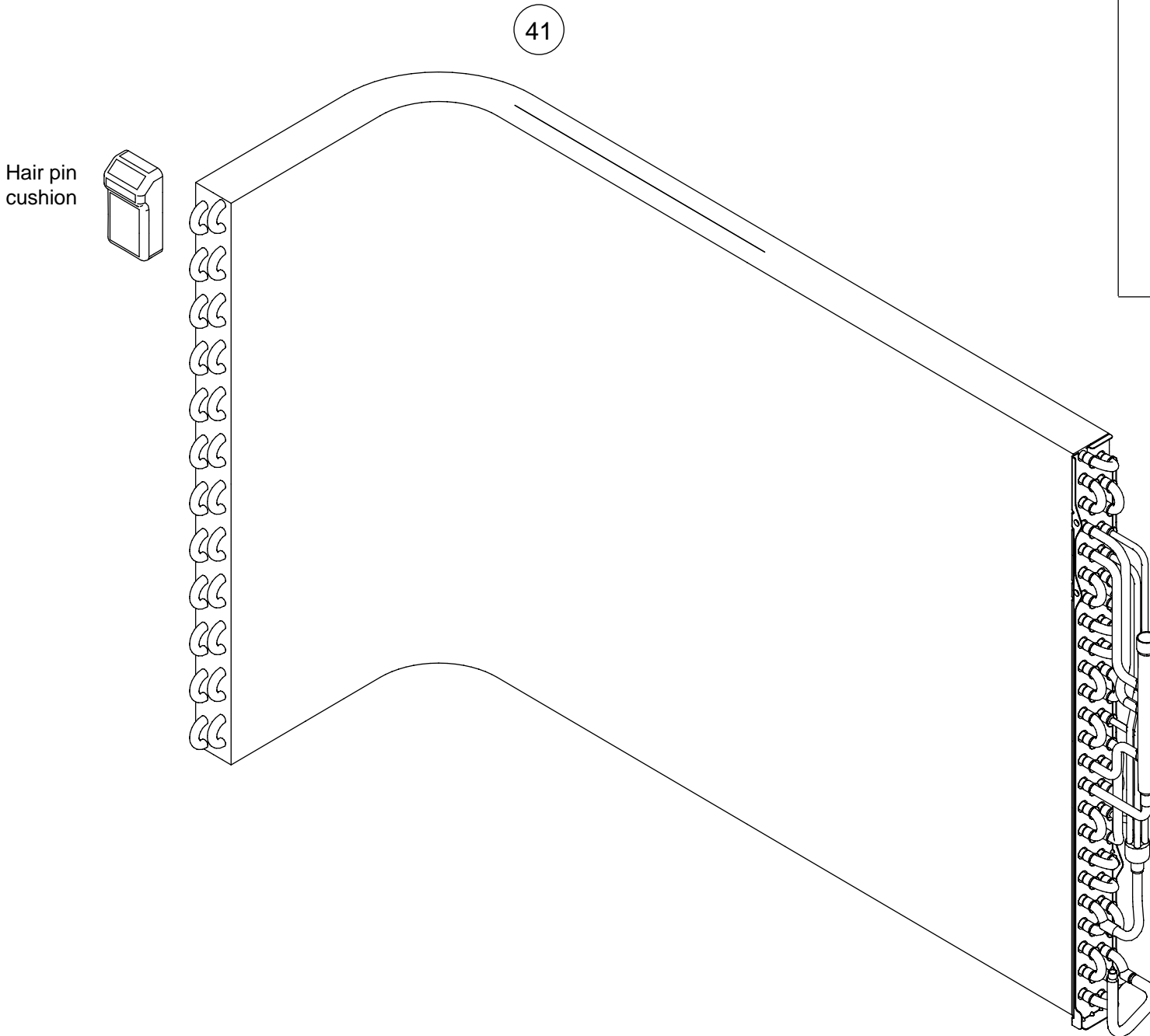
Ref.	Description	Part number
21	Motor bracket assy	9322553010
22	Brushless motor	9603553005 9603657017
23	Terminal	9900435028

OUTDOOR UNIT
AOYG18KLTA

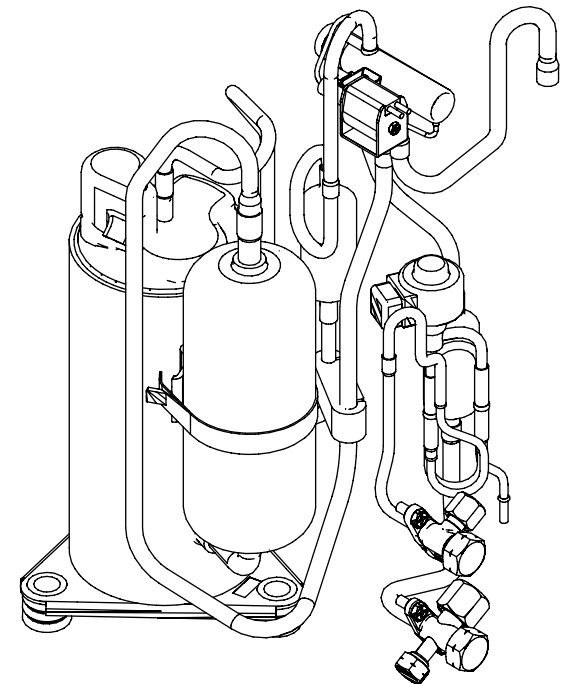


Ref.	Description	Part number
31	Service unit, Main PCB	9709682494
32	Heatsink	9322420015
33	Thermistor assy	9900727062

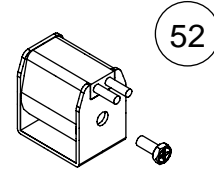
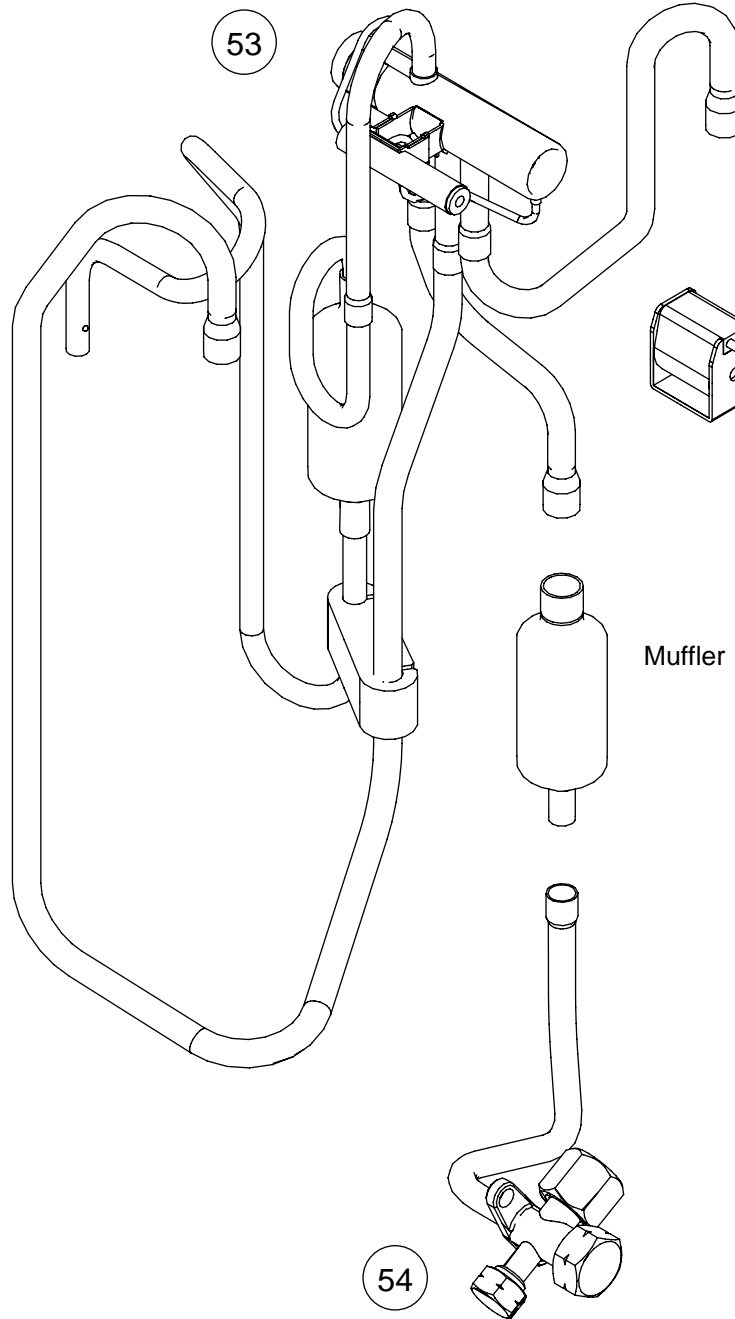
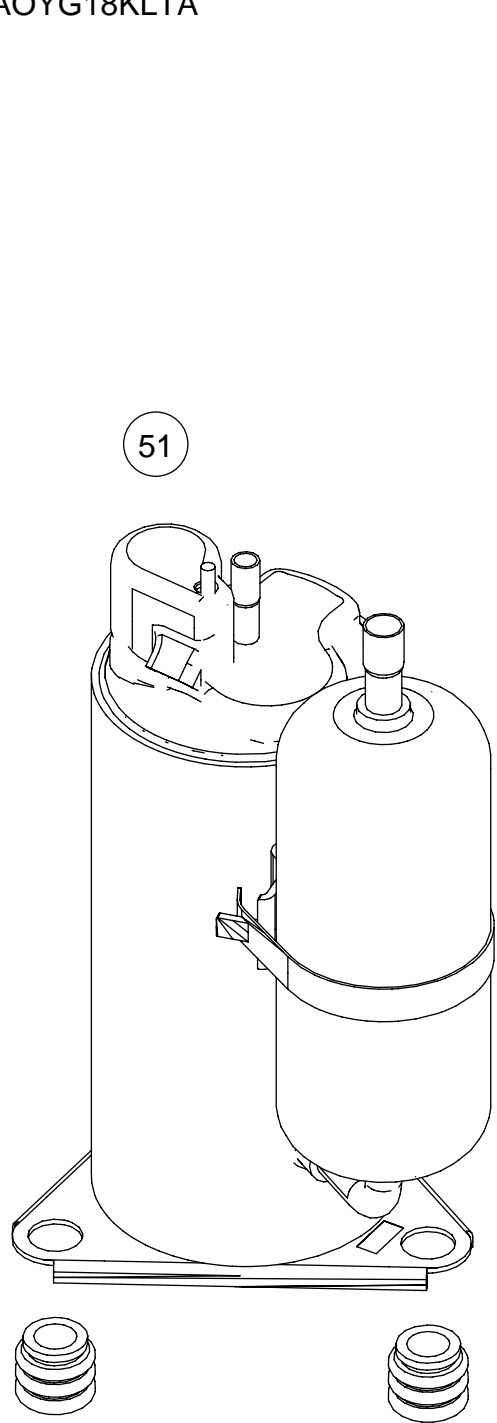
OUTDOOR UNIT
AOYG18KLTA



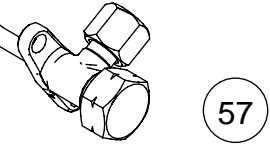
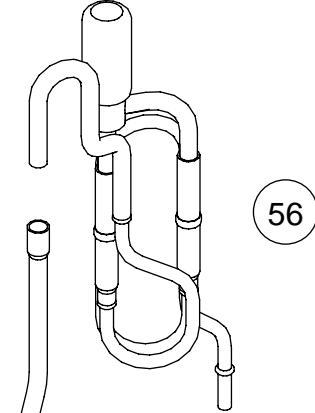
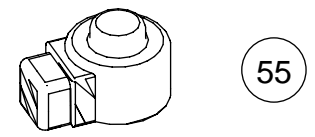
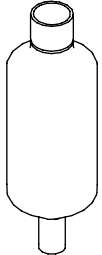
Ref.	Description	Part number
41	Condenser total assy	9322275004
-	S-insulator B	9322535009
-	S-insulator F	9322536006
-	S-insulator H	9322537003
-	S-insulator V	9323045002



OUTDOOR UNIT
AOYG18KLTA

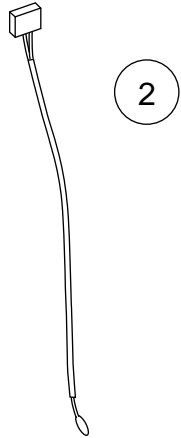
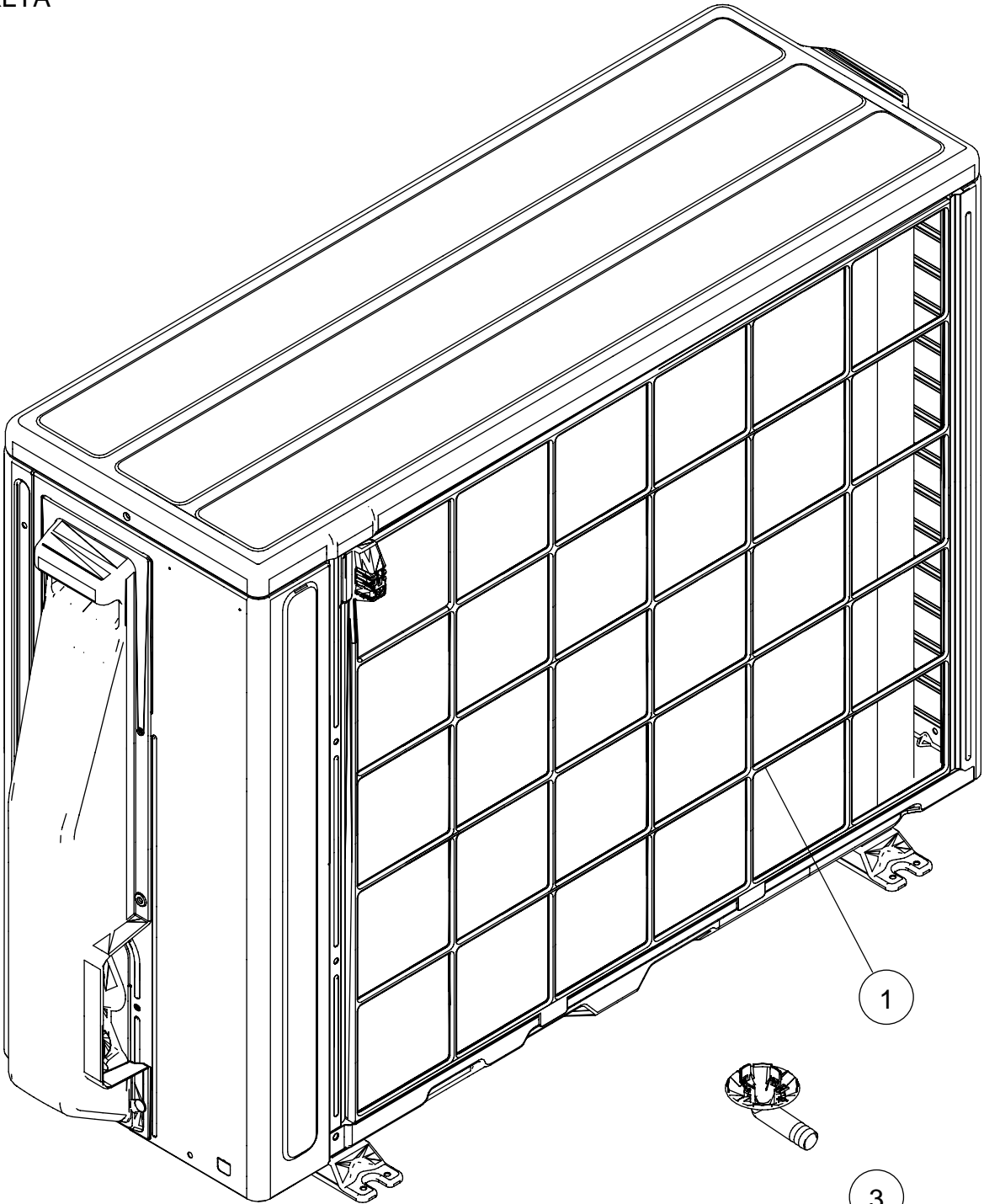


Muffler



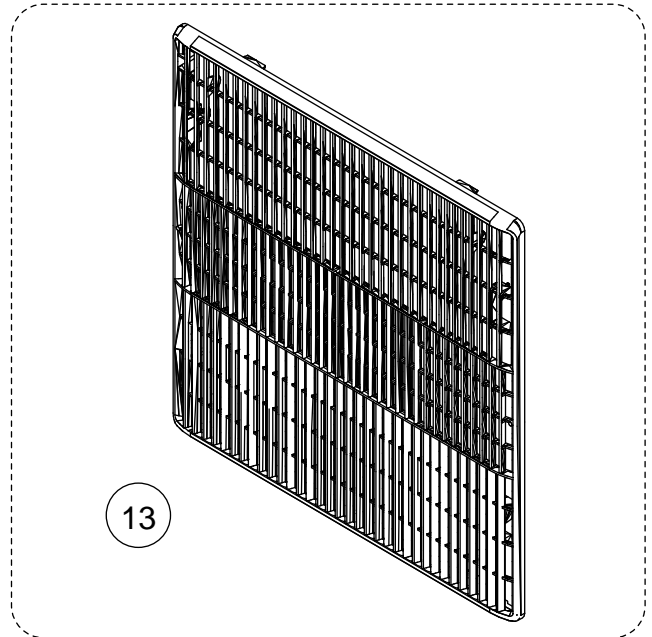
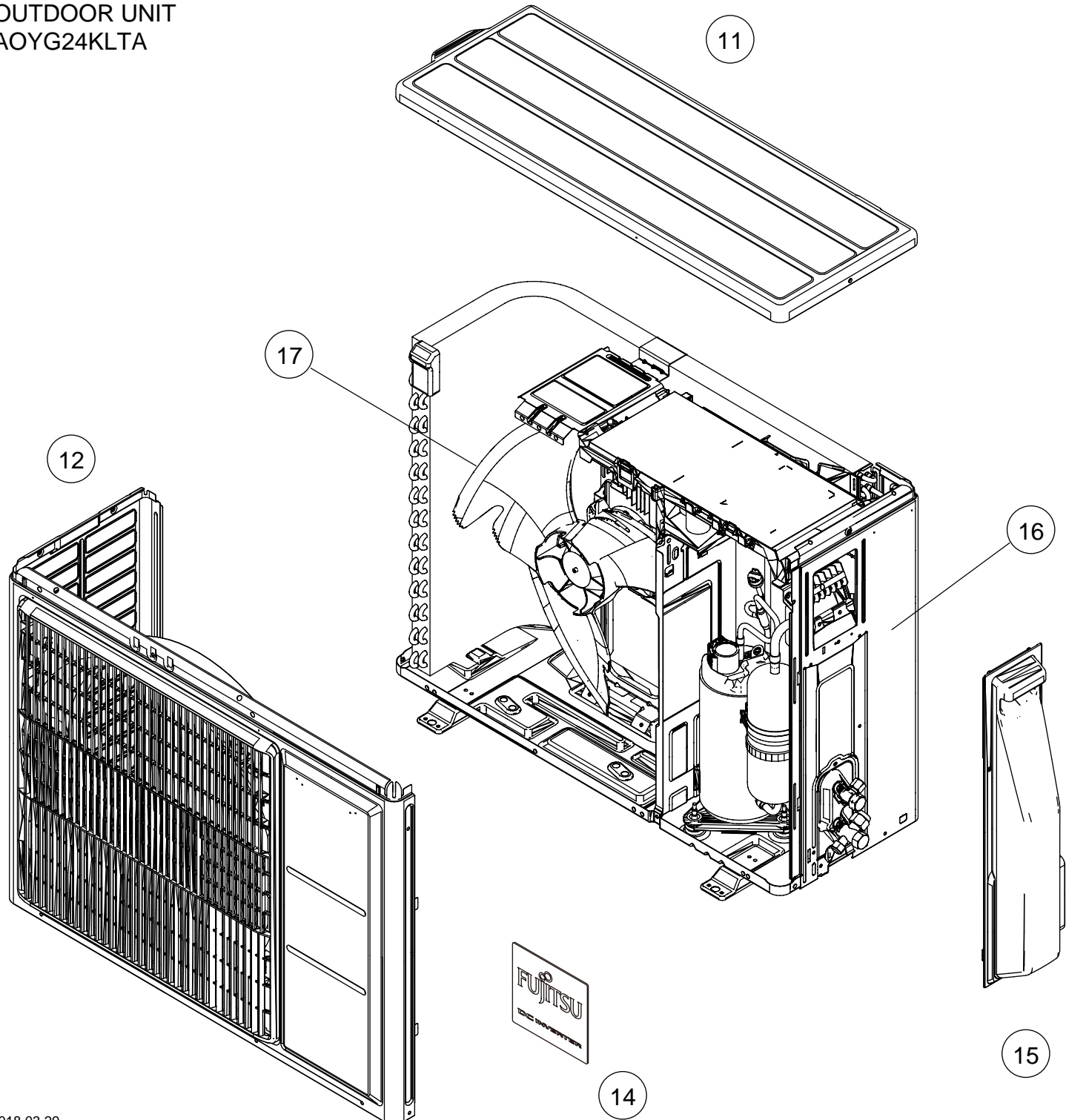
Ref.	Description	Part number
51	Compressor assy	9322433008
52	Solenoid	9970195006
53	4-way valve assy	9322445001
54	3-way valve assy	9322475008
55	Expansion valve coil	9970095122
56	Pulse motor valve assy	9322463005
57	2-way valve assy	9322474001

OUTDOOR UNIT
AOYG24KLTA



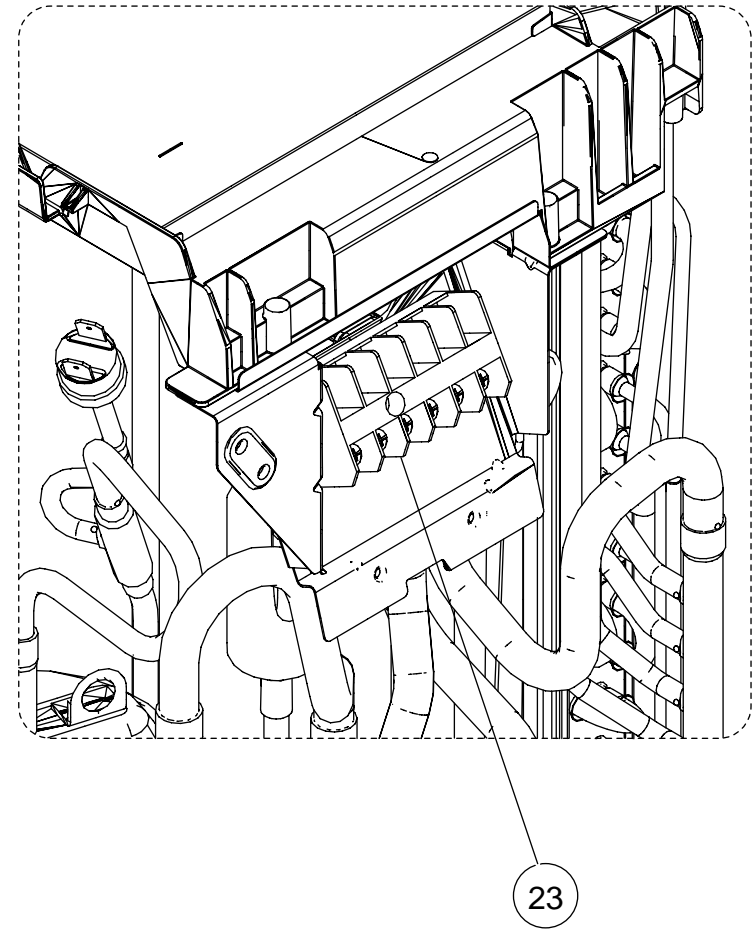
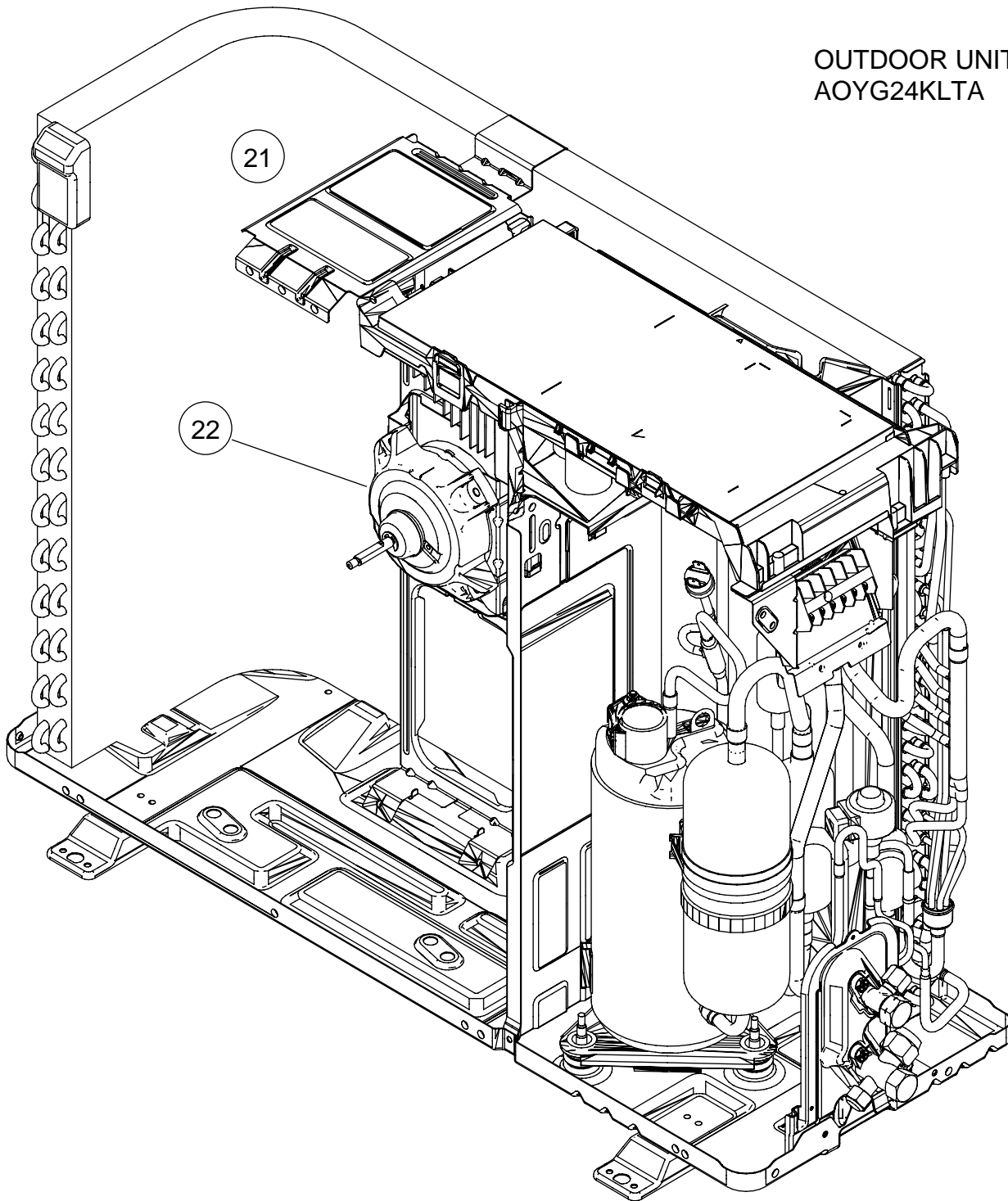
Ref.	Description	Part number
1	Protective net assy	9322811028
2	Outdoor thermistor	9900565060
3	Drain pipe	9322144003

OUTDOOR UNIT
AOYG24KLTA



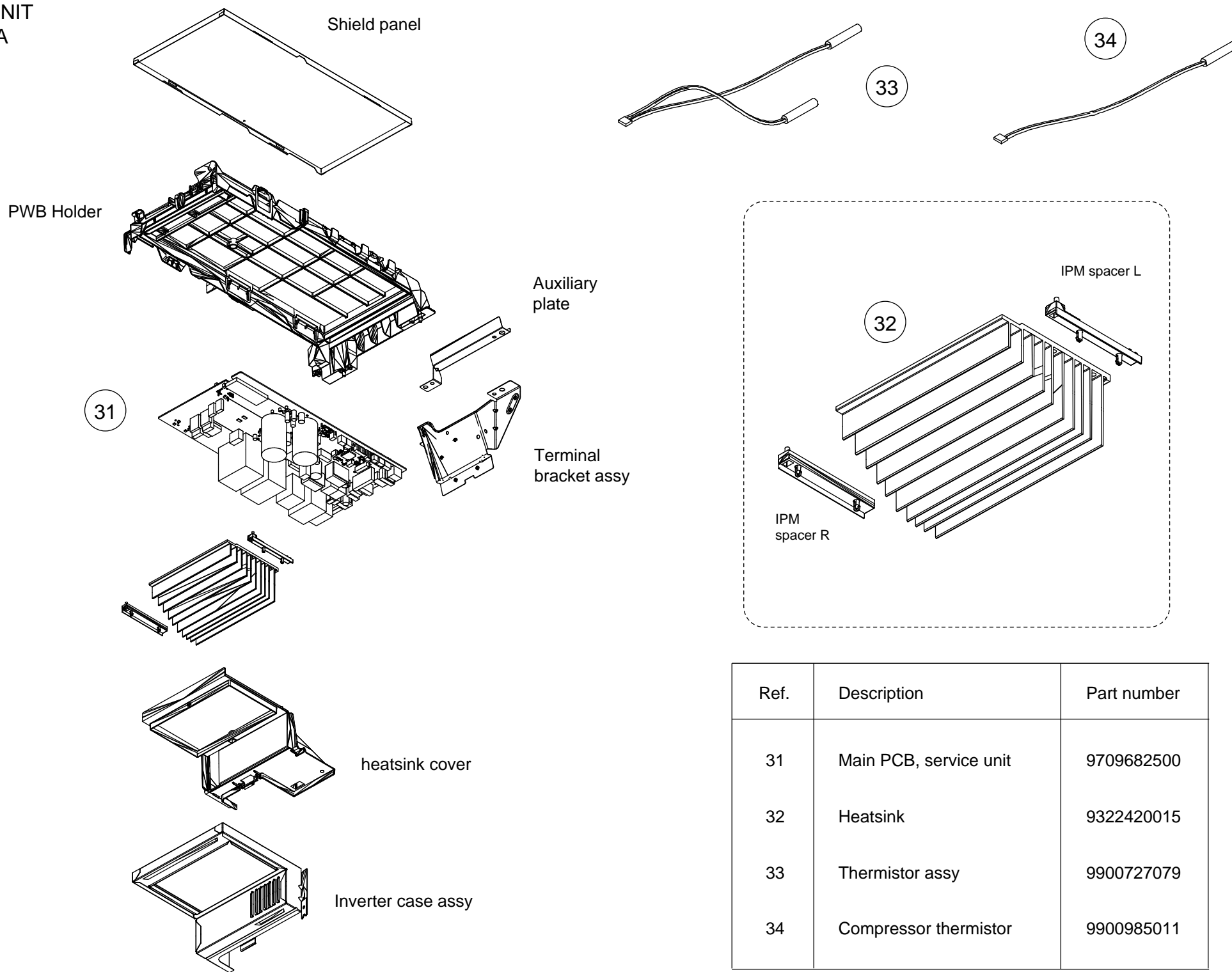
Ref.	Description	Part number
11	Top panel assy	9322556028
12	Front panel assy	9322555021
13	Blow grille	9322149008
14	Emblem	9319151007
15	Switch cover assy	9322570024
16	Cabinet right assy	9322552099
17	Propeller fan	9322150004

OUTDOOR UNIT
AOYG24KLTA



Ref.	Description	Part number
21	Motor bracket assy	9322553027
22	Brushless motor	9603601003
23	Terminal	9900435028

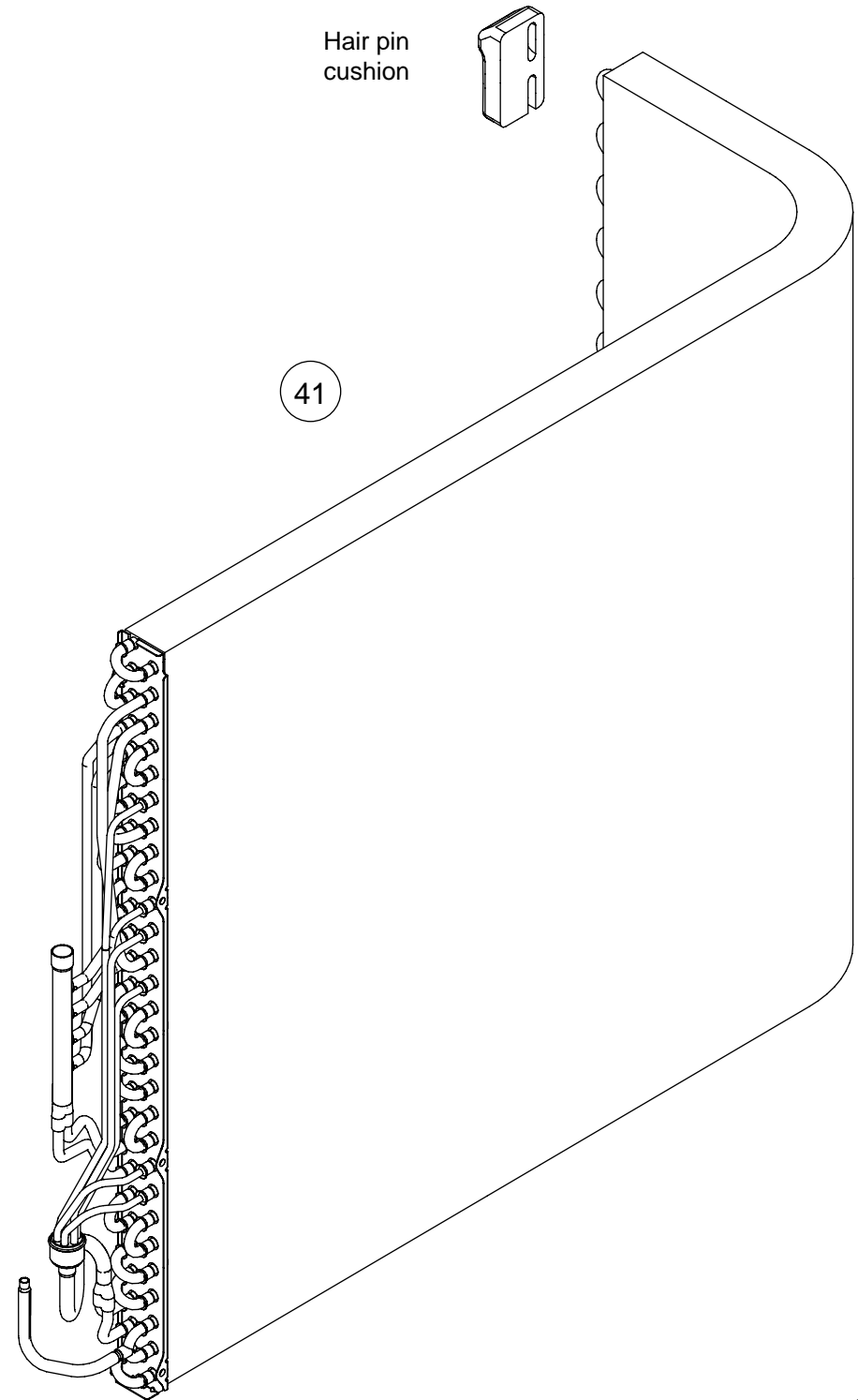
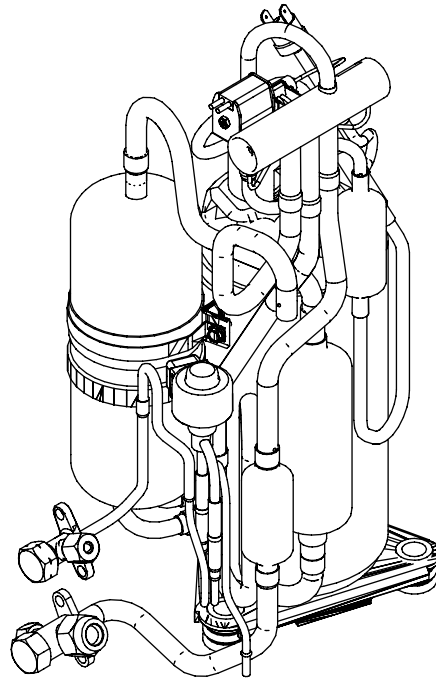
OUTDOOR UNIT
AOYG24KLTA



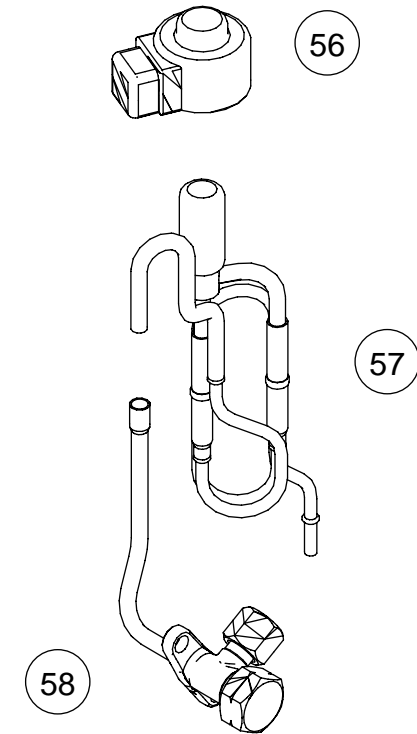
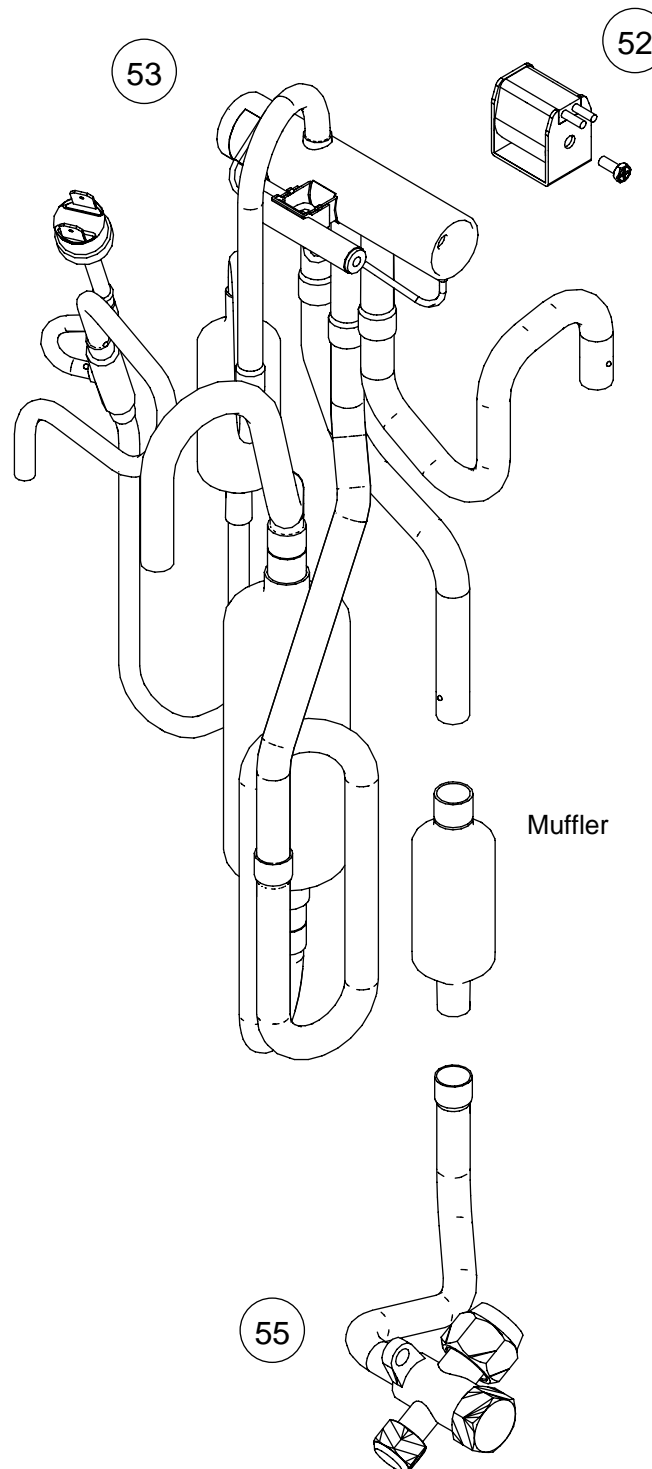
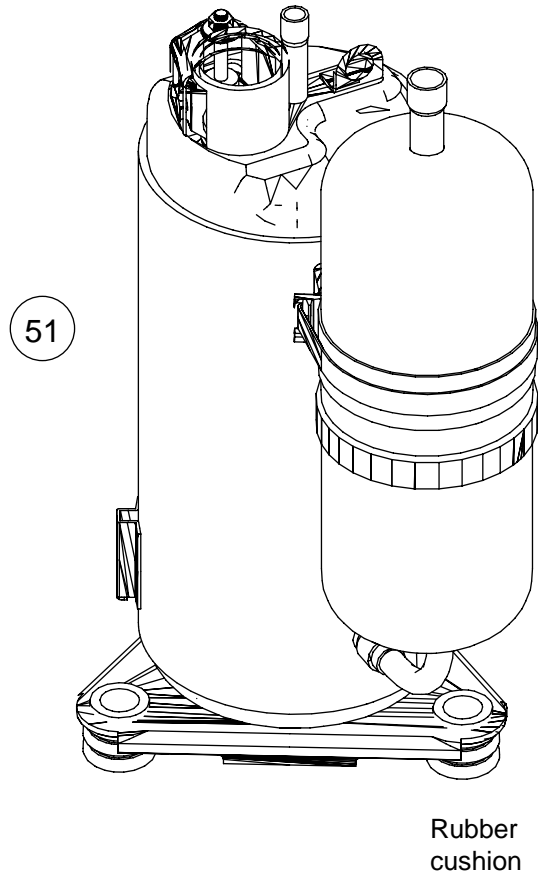
Ref.	Description	Part number
31	Main PCB, service unit	9709682500
32	Heatsink	9322420015
33	Thermistor assy	9900727079
34	Compressor thermistor	9900985011

OUTDOOR UNIT
AOYG24KLTA

Ref.	Description	Part number
41	Condenser total assy	9317089654
-	S-insulator B	9322503008
-	S-insulator F	9322847003
-	S-insulator H	9322501004
-	S-insulator V	9323045002
-	S-insulator K	9322824004



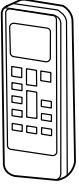

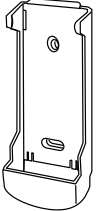
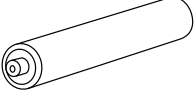
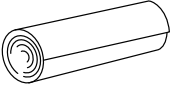
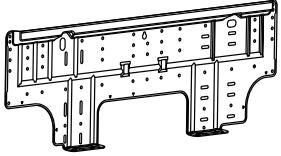
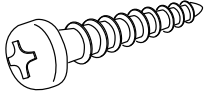
OUTDOOR UNIT
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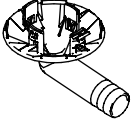
Ref.	Description	Part number
51	Compressor	9810521002
52	Solenoid	9970195006
53	4-way valve assy	9383129001
55	3-way valve assy	9387831016
56	Expansion valve coil	9970095122
57	Pulse motor valve assy	9322463005
58	2-way valve assy	9322474001

ACCESSORIES

INDOOR UNIT
ASYG18KLCA
ASYG24KLCA

Accessories	Q'ty	Accessories	Q'ty
Remote control 	1	Tapping screw (small) 	2
Remote control holder 	1	Battery 	2
Cloth tape 	1	Wall hook bracket 	1
Tapping screw (big) 	5		

OUTDOOR UNIT
AOYG18KLTA
AOYG24KLTA

Accessories	Q'ty
Drain pipe  For drain piping work	1

1803G4717